Texas NorthSTAR Behavioral Health Managed Care Model:

An Independent Assessment of the Medicaid Component

Prepared for

Texas Department of Mental Health and Mental Retardation

and

Texas Commission on Alcohol and Drug Abuse

by

Lyndon Baines Johnson School of Public Affairs
The University of Texas

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Independent Assessment Team

Pat Wong, Director

Kristie Kimbell, Project Coordinator

Pam Diamond, Consultant

Zoraima Diaz

Erine Gray

Amanda Norquest

Nancy Rodgers

Joe Scrocca

Sarah Stout

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Executive Summary

This is an independent evaluation of the NorthSTAR Medicaid Waiver, part of the NorthSTAR Behavioral Health Managed Care Project. The Texas Department of Mental Health and Mental Retardation (TDMHMR) and the Texas Commission on Alcohol and Drug Abuse (TCADA) have jointly administered NorthSTAR as a 1915(b) Medicaid Waiver program in a seven-county area around Dallas. The waiver was approved for initial operation in December 1999, and was renewed by the Centers for Medicare and Medicaid Services (CMS) in 2001. This report presents the findings of the evaluation, which was conducted between August 2002 and May 2003. The evaluation addresses the following questions:

- Has *access* to behavioral health services for Medicaid recipients in the Dallas-area increased, decreased, or remained the same since the implementation of NorthSTAR?
- Under the NorthSTAR model, is the *quality of service* for Medicaid recipients equivalent to or better than it would be under the traditional mental health and chemical dependency treatment service models in Texas?
- Has the *cost-effectiveness* for serving Medicaid recipients been achieved since the implementation of NorthSTAR?

The evaluation includes the analysis of data collected by the NorthSTAR program, as well as information obtained through provider interviews and consumer focus groups. The evaluation team also reviewed existing documents on the program, previous consumer and provider surveys, and other evaluation studies such as external quality review organization (EQRO) reports.

Findings

NorthSTAR is the only managed behavioral healthcare carve-out model in the state of Texas. As the program is still in its infancy, it will likely take several more waiver periods to fully evaluate the program's overall effectiveness. In the initial waiver period, a number of policy changes were implemented to correct for flaws in the original model. The program, now in its fourth year of operation, has begun to stabilize and a baseline is beginning to be established.

1. Access

- Prior to NorthSTAR, there was a declining trend in the number of Medicaid consumers receiving behavioral health services in the Dallas area. That trend has been reversed since the implementation of NorthSTAR in December 1999.
- The penetration rates for the Medicaid SSI population have increased significantly under NorthSTAR. The penetration rates for the Medicaid TANF population have remained stable despite dramatic increases in TANF enrollment due to changes in Medicaid eligibility policy at the state level.
- NorthSTAR has expanded the array of services available to Medicaid consumers.
- The provider network has grown over the course of the program, though the availability of psychiatrists in rural areas is an area of concern.
- Consumers are generally satisfied with their access to care.

2. Quality

- NorthSTAR has steered utilization away from inpatient and residential services and toward outpatient and community-based services, specifically rehabilitation and ACT services.
- NorthSTAR has effectively implemented a 23-hour observation unit, which appears to be successfully diverting consumers and ensuring the most appropriate level of care.

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- During the life of NorthSTAR utilization of prescription medications has increased. In particular, new generation medications as a percentage of total prescriptions has increased.
- Hospital recidivism has trended down slightly over the life of NorthSTAR.
- While follow-up within 30 days of discharge from a hospital, ER, or observation unit has improved over the life of NorthSTAR, it remains at a less than desirable level. NorthSTAR staff are studying this area further to determine how to effect improvement in this area.
- NorthSTAR has maintained consumer and provider satisfaction with the quality of care.
- Consumers and providers alike expressed limited knowledge or information regarding various aspects of the NorthSTAR system, specifically the complaint process. Some providers familiar with the process expressed disillusionment with it.

- NorthSTAR state office has a comprehensive quality monitoring process, and ValueOptions has experienced deficiencies with timely compliance with the required submission of quality improvement projects and the QIP update.

- The NorthSTAR data warehouse is a program asset, enabling the NorthSTAR staff to identify service utilization trends and outliers and make necessary adjustments.

- Providers, as might be expected, are dissatisfied with reimbursement rates and administrative responsibilities. Providers indicate through both the EQRO report and through our provider interviews that they are satisfied overall with consumer access to care, and in general with quality of care in the NorthSTAR system, although they believe there is room for improvement.

3. Cost Effectiveness

- In previous research, both HHSC and Texas Tech University found cost savings have been achieved in the NorthSTAR program. Our research confirmed these findings. Over the four-year waiver period, we estimate that NorthSTAR will result in a savings of more than $20 million. We also conclude that the state's methodology for determining upper payment limits and capitation rates was sound.

Conclusion

Based on the empirical information and stakeholder/consumer feedback throughout the independent assessment process, we conclude that overall NorthSTAR has been successful in increasing service access and reducing program costs. The program's impact on service quality is a bit more ambiguous, partly because of limitations in data and time for research. It is our impression that the quality of services is no worse than that in the traditional Medicaid behavioral health service system overall, and has improved under NorthSTAR in the reduction in emphasis on in-patient services.

Despite the program's success, there are areas for which improvement is needed.

Recommendations

Based on the empirical information and stakeholder and consumer feedback throughout the independent assessment process, we conclude that overall, NorthSTAR has been successful in increasing service access and reducing program costs. The program's impact on service quality is a bit more ambiguous, partly because of limitations in data and time for research. It is our impression that the quality of services is no worse than that in the traditional Medicaid behavioral health service system overall, and has improved under NorthSTAR in the reduction in emphasis on inpatient services.

Despite the program's success, there are areas for which improvement is needed. We present the following recommendations for further improvement of the program:

Recommendation #1: Maintain and expand the provider service network

The specialty provider network is an asset of the NorthSTAR program. The state should make every effort to maintain the diversity of SPNs and add to it as needed in the future. Psychiatrists and psychiatric RNs in particular should also be added in order to further increase access to providers. This is especially true in the outlying rural areas.

Recommendation #2: Rigorously pursue the use of telemedicine technology

The Texas Legislature has recently approved Senate Bill 691 to make telemedicine services reimbursable in the State's Medicaid program. DANSA has also started to build the infrastructure for such services within NorthSTAR. Telemedicine is an important strategy for addressing issues of service access, and the State NorthSTAR office should work to facilitate its development

Recommendation #3: Re-examine the organization of the Mobile Crisis Unit

While the Mobile Crisis Unit is an important element of the service array, some NorthSTAR providers believe that having a Dallas-based mobile unit is not the best approach. We are aware that the cost of a decentralized mobile unit may or may not be justified. However, the state should explore the possibility of having mobile crisis units based on smaller geographical regions within the NorthSTAR area.

Recommendation #4: Re-examine residential facilities and chemical dependency services

Although in general outpatient services are less expensive and more flexible, the program should not be driven entirely by a desire to avoid inpatient and residential services. There have been references by both providers and consumers to the lack of appropriate residential services in two areas: for children and for consumers with a chemical dependency. The state should explore the possibility of adding appropriate facilities in these two areas to the service array of NorthSTAR.

Recommendation #5: NorthSTAR state office and DANSA should pursue substantive analysis of community follow-up after discharge from hospitals or 23-hour observation and should work with ValueOptions to address any deficiencies.

The state's contracted EQRO is currently conducting a study that will address this issue at least in part. The NorthSTAR state staff with DANSA should review closely any related findings by the EQRO and work with ValueOptions to address any identified deficiencies to effect positive change in this area. The state and DANSA should consider further study as needed in this area to supplement the EQRO findings.

Recommendation #6: Strengthen the monitoring of program rule changes by the behavioral health organization

The state NorthSTAR office and the current BHO, working together, have been effective in adjusting program rules, such as the preauthorization limit for rehabilitation services and service coordination, according to feedback from data. This is a positive feature. However, in the interest of checks and balance, the state office should monitor carefully such policy changes to make sure that the quality of services is not sacrificed for cost savings.

Recommendation #7: Further strengthen the quality monitoring process in the system

As discussed in Chapter 3, the NorthSTAR program's quality monitoring is adequate, but there is room for improvement. One way to accomplish this is to add an annual contract audit of ValueOptions by NorthSTAR and/or by DANSA to address specifically past deficiencies and to ensure compliance with other quality-related responsibilities. A second strategy is for the state office to work closely with the BHO and DANSA to clarify each organization's responsibility in quality assurance, to determine clearly defined long-term quality goals and to develop formalized plans for meeting them.

Recommendation #8: DANSA and NorthSTAR state office should carry out an evaluation of the potential lack of adequate information or knowledge by consumers.

The recent effort by DANSA to improve its web-based information is commendable. At the same time, outreach to consumers as well as providers should be carried out with multiple strategies and on an ongoing basis. In view of the apparent lack of knowledge about procedures for complaints and other system processes on the part of both the consumers and the providers, we recommend that DANSA and NorthSTAR state office engage in further study of this area to better understand potential deficits in information or knowledge before undertaking any needed remediation.

Recommendation #9: Increase consumer participation

Another way to address the lack of knowledge by consumers—and at the same time increase feedback to the service system—is to institutionalize more formal mechanisms for consumer participation. DANSA currently has a consumer advisory council, but

NorthSTAR State office, ValueOptions, and DANSA could all enhance educational efforts/methods regarding the system, consumer benefits, and how consumers can be involved in the system, perhaps through committees both for consumers entering NorthSTAR, and those already being served.

Chapter 1. Background

The NorthSTAR program is part of the effort by the state of Texas to make its Medicaid program more efficient through the use of managed care. In the early 1990s, the state began to adopt managed care as a strategy to achieve a number of desired goals within the state Medicaid plan, including: achieving cost effectiveness; enhancing the quality of health care; improving continuity of care; promoting prevention and wellness; increasing access to and availability of health care services; reducing inappropriate utilization; improving customer and provider satisfaction; and increasing accountability of consumers, government officials, health plans, and healthcare providers.[1]

As a result of this Medicaid managed care initiative, Texas launched a number of Medicaid waiver programs under the name of STAR. These waiver programs placed physical health and mental health coverage under the same managed care plans. With NorthSTAR, the state used a different approach in Medicaid behavioral health service delivery by separating it from physical health care and by combining mental health and substance abuse services in a single system. In 1999, the state of Texas obtained a 1915(b) Medicaid waiver to operate the NorthSTAR program in the seven-county service delivery area (SDA) surrounding Dallas.[2]

NorthSTAR combines the following features:

- As an **at-risk model**, the state contracts with a behavioral health organization (BHO), which assumes risk for the delivery of all covered services to qualified beneficiaries.[3]
- It is a **carve-out model** with mental health and substance abuse services carved out of the physical health service delivery system
- It is an **integrated model** for the delivery of mental health and substance abuse services to Medicaid and medically indigent patients.
- It is a **blended-funding model,** pooling financing from a variety of sources; separate streams of funding are maintained for the Medicaid and non-Medicaid populations.

These features call for a system of organizations with different roles and complex processes for managing funds and client services. Blended funding allows Medicaid recipients and non-Medicaid indigent recipients of behavioral health services to be served under one system. This evaluation will focus on the Medicaid portion of NorthSTAR only. The remainder of this chapter provides an overview of the NorthSTAR program, including the organizational entities involved, its financing mechanism, eligibility criteria and enrollment processes, and the purpose and scope of this evaluation.

Organizational Entities

NorthSTAR is jointly administered by Texas Department of Mental Health and Mental Retardation (TDMHMR) and Texas Commission on Alcohol and Drug Abuse (TCADA). Both agencies are part of Texas Health and Human Service Commission (HHSC), the umbrella agency that also houses the state Medicaid office.

TDMHMR and TCADA staff operate the NorthSTAR office, which oversees the program at the state level. In addition to the functions described below, the NorthSTAR office maintains a data warehouse to allow the program to gather enrollment, encounter, and payment records. The data warehouse system also connects data files on individual assessment, state hospital use, and prescription drug use. This data warehouse makes it possible for NorthSTAR staff to analyze patterns in enrollment, service utilization, and cost.

The state office works with the Dallas Area NorthSTAR Authority (DANSA), a local behavioral health authority, which coordinates strategic planning, oversees consumer issues, and provides ombudsman services. A board appointed by the seven NorthSTAR counties governs DANSA.[4]

While program oversight functions are shared with DANSA, fiscal and contracting authority remains solely with the state NorthSTAR office. The NorthSTAR office contracts with a private BHO, ValueOptions,[5] which bears the financial risk of the program and manages the delivery of care.[6]

In its role as the BHO for NorthSTAR, ValueOptions is responsible for maintaining an adequate provider network, paying network providers, and managing care for NorthSTAR enrollees.

The provider network maintained by ValueOptions currently includes a Specialty Provider Network (SPN) of 11 organizations[7] and an additional network of about 429 providers. SPNs are entities that provide service coordination, specialized care, and more intensive levels of service than other network providers. Some NorthSTAR services are exclusively provided by SPNs. These include Assertive Community Treatment (ACT) teams, rehabilitation, supported housing, supported employment, and case management.

Since the program's inception, the BHO has made a number of changes to the model to improve care and achieve cost efficiency. Most notably, the BHO implemented a 23-hour observation unit in March 2001 where patients could be sent before being admitted to hospitals. This change, which was made in reaction to the overutilization of inpatient services at the beginning of the program, was intended to improve cost effectiveness and to ensure that patients were directed to the most appropriate level of care.[8] This process is discretionary for Medicaid patients, who may still be admitted directly to inpatient hospital care without going through the 23-hour observation process.

Financing Mechanism

The Medicaid portion of NorthSTAR is financed with Medicaid and state funds. The state NorthSTAR office pays the BHO a per-member-per-month (PMPM) rate for each category of Medicaid enrollees in the service delivery area. The PMPM rate covers the cost of direct care to beneficiaries as well as the BHO's administrative costs and profit. The NorthSTAR Medicaid PMPM rate varies by client category and may not exceed the Upper Payment Limit (UPL)[9] as approved by the Centers for Medicare and Medicaid Services. Client categories for rate setting are defined in terms of age and whether the clients are TANF or SSI recipients, as shown below:[10]

Table 1.1
NorthSTAR Waiver Period Two Capitation Rates

Medicaid Eligibility Categories	Approved Waiver Rates Per Member Per Month	
	12/1/01-11/30/02	12/1/02-11/30/03
SSI Aged (65+)	$ 2.23	$ 2.27
SSI Adult (21+)	$ 69.62	$ 71.42
SSI Child (<21)	$ 39.25	$ 40.76
TANF Adult (21+)	$ 17.73	$ 18.32
TANF Child (<21)	$ 4.33	$ 4.38
Composite Waiver Rates	$ 15.10	$ 15.33

Source: Texas Department of Mental Health and Mental Retardation. Application for NorthSTAR Waiver Renewal to Centers for Medicare and Medicaid Services.

The amount of funds that the BHO may retain for administration and profit is contractually limited in this model. The contract requires the BHO to meet a direct service claims target (DSCT), which is a percentage of total program funds that must be spent on direct care. NorthSTAR's original request for proposals allowed bidding BHOs to choose DSCT values between 86 percent and 90 percent. ValueOptions is contracted at the 86 percent DSCT rate, meaning that at most it may retain 14 percent of program funds for administration and profit. To date, the company has spent more than 86 percent of program funds on direct care each year.

Eligibility and Enrollment

With a small number of exceptions, enrollment in NorthSTAR is mandatory for all Medicaid beneficiaries residing in the NorthSTAR service delivery area.[11] At the beginning of NorthSTAR, individuals already on Medicaid received information from the state's enrollment broker,[12] including a phone number to call for questions and a list of times and places that informational meetings were held. They were asked to choose a plan for behavioral health services.[13] If a plan was not chosen, one was chosen for the individual. Subsequently the enrollment process for Medicaid recipients in the NorthSTAR program changed. With just one BHO currently, Medicaid beneficiaries are automatically enrolled in NorthSTAR when they are enrolled in Medicaid. They can go

to any network provider and receive clinically indicated services. The total Medicaid enrollment of NorthSTAR over time is presented below.

Table 1.2
NorthSTAR Medicaid Enrollment: Waiver Years One through Four (Actual and Estimated)

	Enrollees	Monthly Average	Annual Member Months
December 1999 - November 2000			
SSI ADULT[14]	24,957	20,775	249,302
SSI AGED[15]	16,237	14,145	169,741
SSI CHILD	8,550	6,803	81,638
TANF ADULT	26,367	13,175	158,095
TANF CHILD	160,131	91,971	1,103,650
Total	236,242	146,869	1,762,426
December 2000 – November 2001			
SSI ADULT	25,980	21,691	260,292
SSI AGED	16,695	14,372	172,468
SSI CHILD	8,776	7,047	84,569
TANF ADULT	29,218	14,919	179,024
TANF CHILD	182,113	108,571	1,302,856
Total	262,782	166,601	1,999,209
December 2001 – November 2002			
SSI ADULT	27,897	22,988	275,860
SSI AGED	17,446	14,930	179,161
SSI CHILD	9,446	7,436	89,237
TANF ADULT	34,347	17,952	215,424
TANF CHILD	243,784	152,321	1,827,850
Total	332,920	215,628	2,587,532
December 2002 – November 2003 (estimated based on 8 months of actual data)			
SSI ADULT	28,622	23,586	283,027
SSI AGED	17,627	15,085	181,025
SSI CHILD	9,960	7,841	94,094
TANF ADULT	35,666	18,641	223,697
TANF CHILD[16]	305,592	190,940	2,291,275
Total	397,467	256,093	3,073,118

Source: Email from NorthSTAR state office staff, June 2003.

Purpose of Evaluation

As a 1915(b) waiver, an Independent Assessment of the program is required during the first two waiver periods to ensure the program is in compliance with federal guidelines stipulated in 42 CFR 431.55(b)(2). The University of Texas Lyndon B. Johnson School of Public Affairs, contracted by TDMHMR and TCADA, has prepared this report for the Center for Medicare and Medicaid Services (CMS) to provide this independent program assessment. This assessment evaluates the Medicaid portion of the NorthSTAR program in terms of *access to care*, *quality of care*, and *cost-effectiveness* for the second waiver renewal period. The assessment was conducted between August 2002 and May 2003, addressing the following broad questions:

- Has *access* to behavioral health services for Medicaid recipients in the Dallas SDA increased, decreased, or remained the same since the implementation of NorthSTAR?
- Under NorthSTAR, is the *quality of service* for Medicaid recipients equivalent to or better than it would be under the traditional Texas state mental health and chemical dependency treatment service models?
- Has the *cost-effectiveness* for serving Medicaid recipients been achieved since the implementation of NorthSTAR?

As an integrated behavioral health service model, NorthSTAR serves both Medicaid and state indigent consumers under a single system. This assessment focuses only on NorthSTAR as it affects Medicaid enrollees. The assessment process includes a variety of research strategies that enable specific analysis of each of the research questions. These research strategies and the data sources used in this assessment process are listed in Appendix A.

The findings under each of these questions are discussed in Chapters 2 to 4 respectively. Chapter 5 of this report identifies overall strengths and weaknesses of NorthSTAR and presents the recommendations by the independent assessment team.

Chapter 2. Analysis of Service Access in NorthSTAR

NorthSTAR was implemented under the premise that through managed care, Medicaid beneficiaries' access to care could be improved without compromising the quality of care or increasing the cost of care. To examine access to care issues in NorthSTAR, we looked at the program's impact on:

- Number of consumers receiving service
- Ratio of consumers receiving service to total program enrollees (penetration rate)
- Array of services provided
- Adequacy of the provider network
- Consumer satisfaction with access to care

For measures for which data on access to care before the implementation of NorthSTAR was available, we compared the program's performance to the previous system of care under fee-for-service Medicaid. This pre-post comparison is based on encounter data for Medicaid behavioral health services only within the same service delivery area as NorthSTAR.

The following sections in this chapter discuss the respective findings in these five areas.

Quantitative Measures

Number of Consumers Served

Over the first three years of NorthSTAR (December 1999 – November 2002), the number of Medicaid consumers receiving services increased steadily. As reflected in Figure 2.1, the number of Medicaid consumers receiving at least one service in a given month increased from 2,000 to nearly 5,000 between December 1999 and November 2002.

The number of consumers served grew steadily in each of the Medicaid eligibility categories: SSI Adult (21+), SSI Child (<21), TANF Adult (21+) and TANF Child (<21). There was some variation in growth patterns by region within the NorthSTAR service delivery area (SDA).

In contrast, Figure 2.2 shows that, in the 28 months leading up to the implementation of NorthSTAR, there was a significant decline in the number of Medicaid consumers accessing at least one behavioral health service per month. Between July 1997 and November 1999, the number decreased from nearly 5,000 to just fewer than 3,000 consumers per month.

Figure. 2.1
Total Medicaid Consumers Receiving NorthSTAR Services

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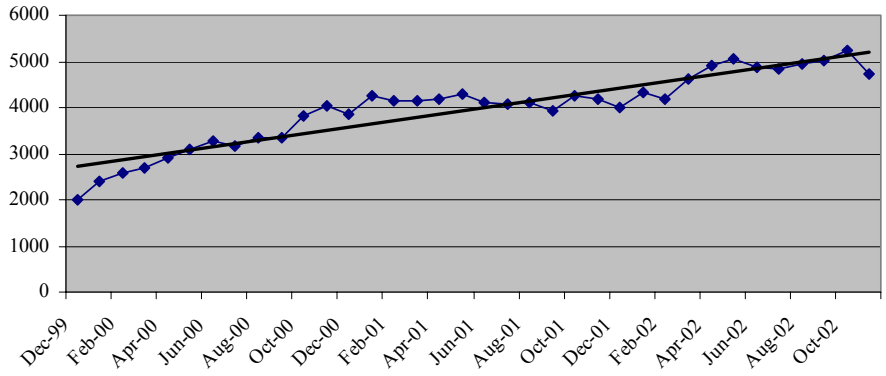
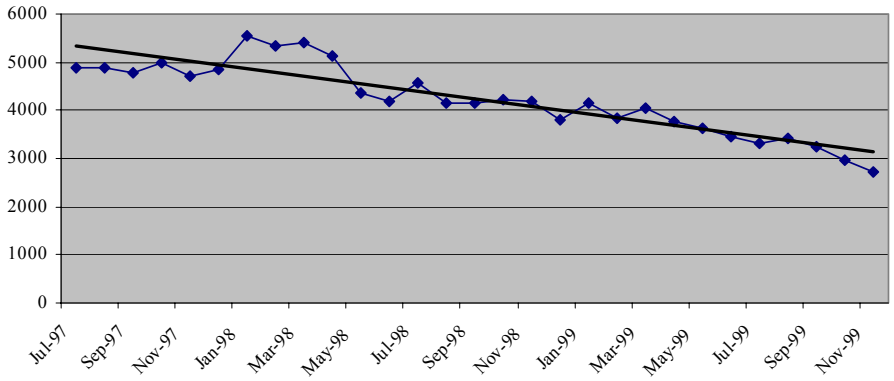


Figure 2.2
Total Medicaid Consumers Receiving Behavioral Health Services Prior to NorthSTAR



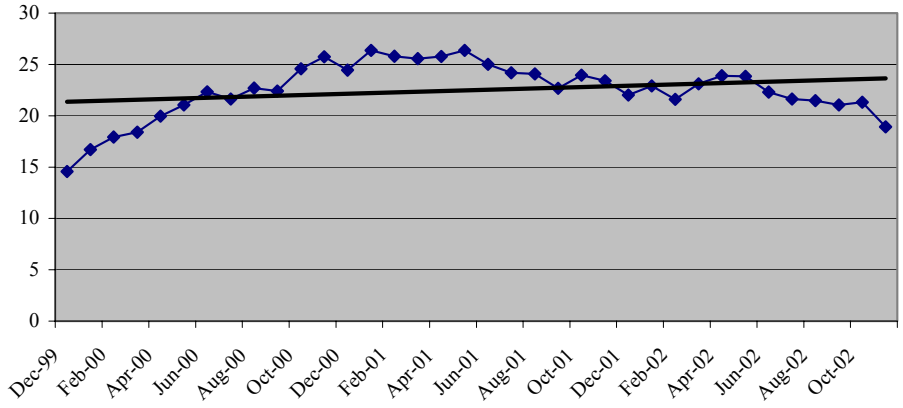
The comparison between these two figures indicates that, at the aggregate level, Medicaid behavioral health services are more accessible under NorthSTAR than they were prior to the program. It is possible, however, that the higher utilization level in NorthSTAR might be due to differences in total Medicaid enrollment between the two periods. To address this competing explanation, we examined service penetration rates.

Penetration Rates

To interpret the change in the number of Medicaid consumers served, it is helpful to consider changes in the number of Medicaid enrollees. As enrollment grows or declines, it is reasonable to expect that the number of people served would follow a similar pattern. Therefore, penetration rates (number served per 1,000 enrollees) are a better measure of the impact of a program on access to care.

In the first three years of NorthSTAR, there was an increase in the penetration rate for Medicaid consumers (see Figure 2.3). In December 1999, when the program was fully implemented, approximately 15 Medicaid enrollees in 1,000 were accessing service. That number increased to more than 20 by June of 2000 and remained over 20 through October 2002.[17] The penetration rate began a gradual decline in the summer of 2001, which was coincidental with an increase in the number of TANF children enrollees. As TANF children tend to have fewer behavioral health problems than other Medicaid enrollees and, therefore, are less in need of service, the penetration rates would naturally decline as the proportion of TANF children enrollees increases. Given that penetration rates for the other eligibility categories grew steadily over the three years, the decline in the total consumer penetration rate since June 2001 is an artifact of changes in enrollment by category, not a decline in access to service.

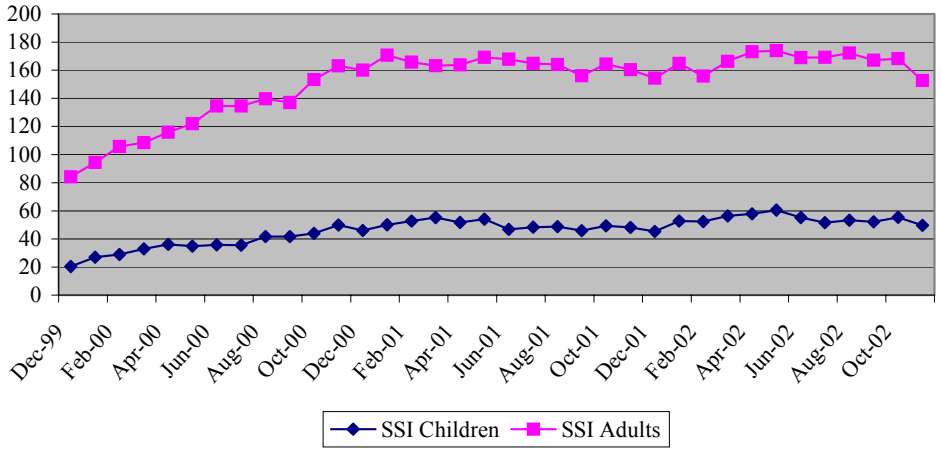
Figure 2.3
Aggregate NorthSTAR Service Penetration Rate



Penetration rates in NorthSTAR have varied significantly by eligibility category. As one would expect, penetration rates for the SSI population are higher than for the TANF population. Under NorthSTAR, the SSI penetration rates have increased significantly, indicating an improvement in access to services for this population. The penetration rate for the SSI Adult population increased from 84 in December 1999 to a peak of 173 in April 2002 and to 152 in November 2002. The average SSI Adult penetration rate in that time period was 151. The NorthSTAR state staff believe that the sharp increase in the SSI Adult penetration rate in the first year of the program occurred because more

consumers in this category were able to access services as the BHOs expanded the provider network. The penetration rate for the SSI Child population, which is much lower than that of the SSI Adult, also increased significantly over the life of the program. In December 1999, the penetration rate for the SSI Child population was 20. It increased to a peak of 60 in May 2002 and was at 49 in November 2002.

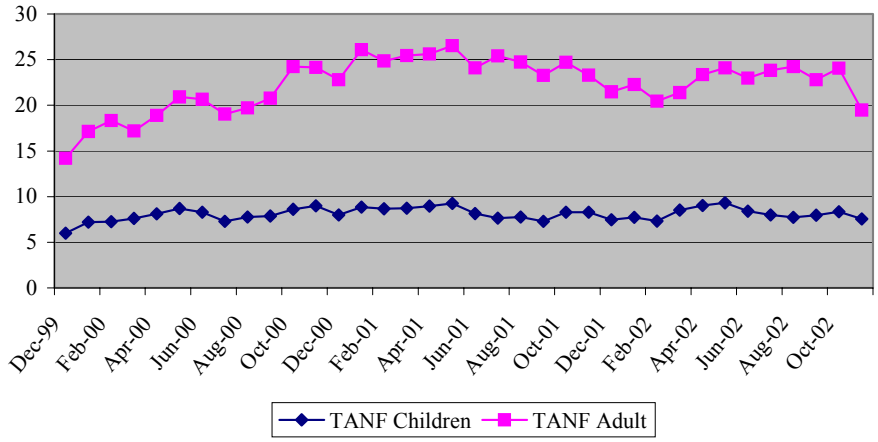
Figure 2.4
NorthSTAR Medicaid Penetration Rates for the SSI Populations (December 1999-November 2002)



The penetration rates for the TANF population have remained fairly steady over the course of the program. For TANF adults, the penetration rate increased from 14 in December 1999 to a peak of 26 in May 2001 to 19 in November 2002. For TANF children, the penetration rate increased from six in December 1999 to a peak of nine in May 2002 to seven in November 2002.

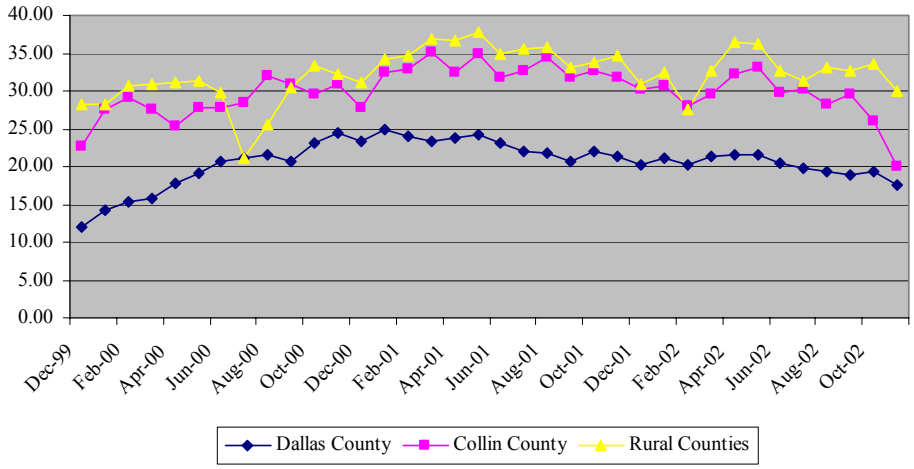
It is important to understand the TANF penetration rates in the context of enrollment. Over the course of the NorthSTAR program, TANF population enrollment in Medicaid increased dramatically, especially for TANF children. For TANF children, enrollment increased by 115 percent over the three-year period from 85,189 in December 1999 to 183,445 in November 2002. For TANF adults, enrollment increased by 56 percent over the three-year period from12,258 in December 1999 to 19,155 in November 2002. The increase in enrollment of TANF children was influenced by statewide policy changes affecting eligibility criteria and eligibility periods. The NorthSTAR state office believes that aggressive efforts by ValueOptions to enroll more children in the program also contributed to the growth in TANF children enrollees.

Figure 2.5
NorthSTAR Medicaid Penetration Rates for the TANF Populations
(December 1999 – November 2002)



As reflected in Figure 2.6, penetration rates are higher in the suburban and rural regions of the SDA than in Dallas County. This may be a reflection of a higher proportion of TANF eligible enrollees in Dallas than in the other regions as TANF enrollees tend to demonstrate fewer behavioral health needs than SSI enrollees.

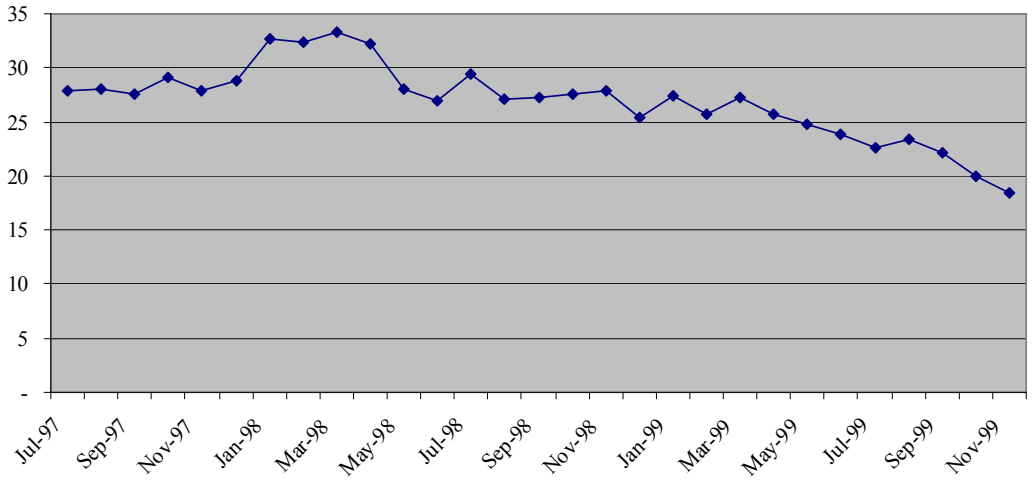
Figure 2.6
NorthSTAR Service Penetration Rates by Region



Pre-NorthSTAR Comparison

In the 28 months prior to the implementation of NorthSTAR, the penetration rate for all Medicaid consumers in the Dallas SDA experienced a gradual decline from nearly 30 persons in 1,000 receiving services to less than 20 persons in 1,000 receiving services (see Figure 2.7). The average penetration rate for this time period was approximately 27 persons in 1,000 eligible persons receiving service on a monthly basis. By comparison, during NorthSTAR, the average penetration rate for Medicaid consumers was lower at 22. The lower average penetration rate in NorthSTAR is influenced by a lower penetration rate in the first year of the program while the behavioral health organizations were ramping up and the decline in the penetration rate since the summer of 2001 is due to an increase in TANF eligible children.

Figure 2.7
Pre-NorthSTAR Medicaid Behavioral Health Service Penetration Rates



Analysis

Overall, the quantitative measures of access to care in NorthSTAR indicate that access to care for the Medicaid population has improved under this program. This is particularly true for the SSI population as indicated by the significant increase in their penetration rates. The increase in access to care is likely the result of the efforts of the BHO to expand the network of providers serving the Medicaid population.

Array of Services

Another measure of access to care is the array of services available to consumers. One of the goals of the NorthSTAR program is to expand and enhance community-based treatment options for Medicaid beneficiaries in the Dallas SDA. Under a Medicaid managed care waiver, states have the flexibility to offer services that would not normally be offered under a traditional Medicaid fee-for-service program. In NorthSTAR, ValueOptions offers a number of alternative services that would not normally be accessible under Medicaid fee-for-service (see Appendix B for a list of services).

Analysis

The expansion of the array of services available to NorthSTAR recipients is, by definition, an increase in access to care for Medicaid recipients.

Adequacy of the Provider Network

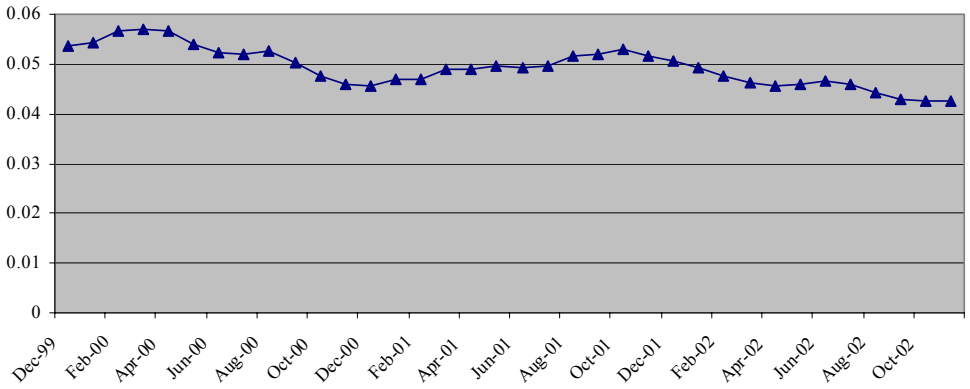
Another important measure of access to care is whether the network of providers available to consumers is adequate to meet their needs. Under NorthSTAR, ValueOptions is contractually responsible for establishing and maintaining the provider network. One of the goals of the NorthSTAR program is to improve access to care for Medicaid patients by providing a better-coordinated and more comprehensive network of providers, particularly those providing community based services.

Since no accepted national standards exist on the number on a desirable ratio of providers to consumers, our analysis of the adequacy of the network focused on trends in active providers participating in the program. We define an active provider as one who records at least one encounter, or claim, during a given time period. We tracked the number of active providers per month during the three-year time period we evaluated. For the purpose of our analysis, provider was defined as a distinct business entity within the NorthSTAR system. Using this definition, a provider is not necessarily an *individual* health care provider.

The number of active providers has increased steadily and significantly over the first three years of the program. Since implementation of the program, the number of providers actively participating in the program has increased from 100 per month to more than 200. The number of providers has been stable and above 200 per month since April 2001.

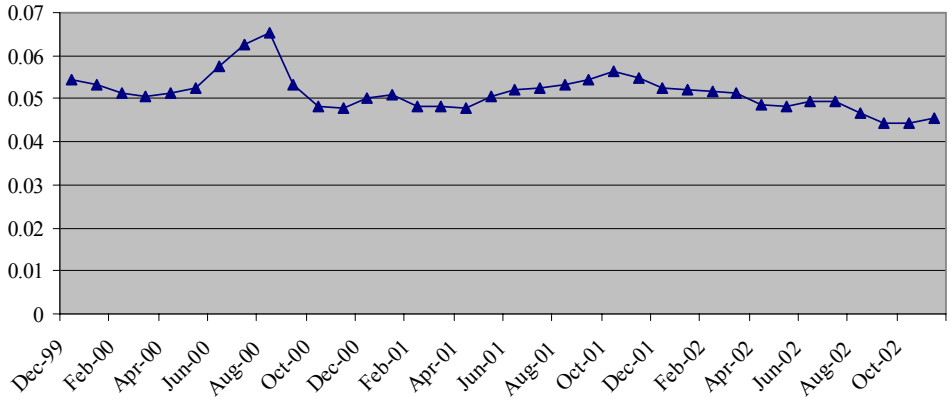
As reflected in Figure 2.8, while the number of providers actively participating in the program has increased, the ratio of providers to consumers has gradually decreased over the first three years of the program. At the beginning of the program, there were roughly five providers per 1,000 Medicaid consumers served actively participating in the program. By October 2002, that number had decreased to approximately four active providers per 1,000 consumers.

Figure 2.8
Ratio of Providers to Consumers



Though the overall size of the network may be adequate, a deficiency in the network is availability of psychiatrists in rural areas. A common complaint about the NorthSTAR program in consumer focus groups conducted for this assessment was that there are not enough psychiatrists in the rural counties. As a result, consumers' choice of providers is limited and their wait to see a provider may be longer than desirable. As Figure 2.9 demonstrates, over the first three years of the program, the ratio of active psychiatrists in the rural areas has declined significantly over the course of the program from nearly seven psychiatrists per 1,000 consumers to four psychiatrists per 1,000 consumers.

Figure 2.9
Ratio of Psychiatrists to Consumers – Rural Counties



Analysis

The decline in the consumer to provider ratio is not surprising, nor necessarily a matter of concern. One would expect that some decline in the provider base would be expected with the maturing of a managed care market. The ratio of providers to consumers is also affected by the increase in Medicaid enrollees over the three-year period.

While the availability of psychiatrists in the rural regions of NorthSTAR is an area of concern, the issue is not unique to the NorthSTAR area. NorthSTAR has sought to help address the deficit by having psychiatrists from the SPNs conduct clinics on scheduled days, with a psychiatrist traveling to a given rural clinic location. ValueOptions has in the past, with little or no success, attempted to attract more psychiatrists to the network by increasing their rates.

Subsequently, NorthSTAR with DANSA's support has been moving toward developing telemedicine capabilities to make psychiatric care more readily accessible in rural areas. The Texas legislature recently passed legislation to support this approach and it is anticipated that HHSC will work to make this service Medicaid reimbursable.

Consumer Satisfaction with Access to Care

Surveys

According to the TDMHMR Adult Mental Health Survey of 2002, 85 percent of NorthSTAR members surveyed reported satisfaction with access to care. This was a slight increase from the 2000 version of the survey where 81 percent of NorthSTAR members agreed when asked, "did you get the services you wanted when you wanted them?"[18] Questions related to these two issues were included in a statewide consumer satisfaction survey conducted by TDMHMR. In that survey, 81.3 percent of consumers stated that they agreed or strongly agreed that the location of services was convenient for them. This compares to 89.1 percent for consumers statewide. Fewer NorthSTAR consumers (3.1 percent) strongly disagreed or disagreed that services were available at convenient times, than overall statewide consumers (5.6 percent).

It is important to note that theses surveys were not limited to Medicaid consumers and that the survey dissemination methodology was different in the NorthSTAR SDA than in the rest of the state, which may have skewed the results for the NorthSTAR area. While in the rest of the state, the survey was conducted in person at local community mental health centers, in the NorthSTAR area, the survey was disseminated by mail.

DANSA also completed the Dallas Area NorthSTAR Authority Consumer Satisfaction Survey in 2002. The DANSA survey found that 80 percent agreement rates for access to services compared to 86 percent statewide.

Similarly 81 percent of those surveyed through the TDMHMR Child and Family Surveys in 2002 also were satisfied with the access to care provided by the NorthSTAR program. Of the 32 NorthSTAR consumers that completed the Youth Services Survey of Families

only 17 percent were dissatisfied with the access to care available.[19] Consumers who completed the survey on behalf of their children were questioned on areas relevant to the access domain including whether or not services were available at times and locations that were convenient.[20]

Consumer Focus Groups

Consumers participating in our focus groups were generally satisfied with access to care under NorthSTAR. Areas where consumers were generally satisfied with access to care include:

- Most reported that it is easy to get an appointment and that wait times for appointments are reasonable;
- Most seemed to understand that they are free to switch providers at any time;
- Most had not experienced unreasonable turnover of providers; and
- Most reported that network capabilities were adequate, especially in urban areas, except for some children's services.

Areas where consumers expressed or demonstrated concerns with the NorthSTAR system include:

- Amount of time they spend waiting in the providers' offices for their appointments;
- Hospital wait times;
- Insufficient time with doctors during their routine appointments;
- Limited children's services in rural areas and in residential treatment facilities;
- Limited understanding about the system; and
- Unclear or lack of understanding of the complaint process.

Analysis

Overall, consumers in NorthSTAR are satisfied with access to care. In surveys and in our consumer focus groups, the majority of consumers report being satisfied with access to care. Our focus group findings indicate that they are satisfied with the choice of providers, the ease of getting an appointment, and with the stability of the provider network. The comments that children's services in rural areas and in residential treatment facilities are limited is a particular area of concern and one that the state should investigate.

Provider Satisfaction with Access to Care

Provider Surveys

One external survey of provider satisfaction has been completed to date, which was conducted by the State Fiscal Year 2000-2001 EQRO, Texas Health Quality Alliance (THQA). THQA performed a provider satisfaction survey in 2001. THQA had a 74 percent response rate from a representative sample (by type of provider).[21] It found that at least half of respondents were satisfied or very satisfied with coverage levels for treatment and clinical services and expressed that NorthSTAR does not decrease access to care.[22]

Provider Interviews

In general, providers interviewed by our evaluation team are satisfied with access to care in NorthSTAR. Areas in which providers were satisfied with access to care include:

- Array of services;
- Adequacy of the provider network; and
- Number of consumers accessing particular types of services, including Assertive Community Treatment services, outpatient services, service coordination, and rehabilitation.

Areas where providers believe access to care under NorthSTAR could be improved:

- Lengths of stay; and
- Access to psychiatric, acute care, and residential mental health services for children.

Analysis

In general, providers have been satisfied with access to care under NorthSTAR and in our interviews, most providers have expressed the view that NorthSTAR has increased access of care for Medicaid consumers compared to the previous system of care. The observation by some providers that availability of certain services for children continue to be limited substantiates the similar claim made by consumers in the focus groups and suggests the state should explore this further.

State Monitoring of Access to Care

Three organizational entities within NorthSTAR have responsibilities for ensuring access to need care. They are the state NorthSTAR office, ValueOptions, and DANSA. This section describes what each of these three entities has put in place in discharging their respective responsibilities.

1. The **NorthSTAR state office** monitors access to care through the following four methods:

    - Data Analysis. The NorthSTAR state office tracks enrollment and utilization data in its data warehouse and analyzes trends in enrollment and utilization rates.

    - Contract Oversight. The NorthSTAR state office uses the BHO contract, which is reviewed annually, to ensure the BHO complies with specific standards for access to care (see below).

    - Complaint consolidation, tracking, analysis and follow-up. NorthSTAR state office consolidates complaints made to the BHO(s), to DANSA, and directly to their office, analyzing them for trends and indicators of systemic problems and conducting follow-up with the BHO, providers and consumers to ensure complaint resolution.

    - Annual and Occasional Provider Clinical Record Audits. The NorthSTAR state office conducts annual clinical record audits of providers to ensure proper documentation of care. Audits are also conducted on an as needed basis when the data book or a complaint(s) highlight an area of concern.

2. The **BHO**, ValueOptions, is contractually obligated by the NorthSTAR state office to ensure that the consumers have access to the covered array of services; that the provider network is adequate to provide those services; that the network is sufficient to meet the needs of multi-lingual consumers; that services are available on a timely basis; that services not provided within network or available to consumers out-of-network; and that decisions to deny authorization of a service are reasonable.

3. **DANSA** is contracted by the NorthSTAR state office to assist with program oversight and to perform, among others, the following quality-related functions:

    - Ombudsman Services;

    - Policy Development;

    - Planning and Development; and

    - Monitoring and Oversight

The contract between the NorthSTAR state office and the BHO contains a number of provisions related to access to care, including:

Array of Services

- All behavioral health services covered under the Medicaid state plan are available and accessible under NorthSTAR;

Provider Network

- BHO must maintain a provider network that is sufficient to provide covered services to all enrollees (requirements for types of facility-based, non-facility based providers, and community hospitals that must be in the network are specified);
- Provider network must be sufficient in rural areas and must include hospitals, physicians, and community support service agencies;
- Consumers must not have to travel more than 30 miles to receive covered services, with the exception of psychiatric hospitalization, 24-hour residential rehabilitation, and inpatient detoxification services, for which consumers must not be required to travel more than 75 miles;

Out-of-Network Services

- If a covered services is not available or accessible from a covered provider, the BHO must cover those services at an out-of-network provider;

Timeliness

- Covered services must be available 24-hours per day and seven days per week;
- Emergency services must be available immediately;
- Urgent care services must be available within 24 hours;
- Routine care must be available with 14 days of request;
- For telephone inquiries, the BHO must ensure that callers reach a recorded voice within 30 seconds and that telephone abandonment rates do not exceed five percent;

Multi-Cultural and Multi-Lingual Access

- The BHO must ensure that the consumers have access to providers of a variety of cultural backgrounds and that they have access to an interpreter if needed;

Authorization

- Decisions to deny authorization of a service must be reviewed by board certified or board eligible psychiatrists of the same or similar specialty. Denial of authorization of services to a child must be reviewed by a child psychiatrist. Decisions to deny authorization of chemical dependency services must be reviewed by a provider with demonstrated expertise in this area.

The state monitors both the provider capacity and the range of services available and used through the NorthSTAR data book. The BHO submits a monthly report to the state on all providers entering and leaving the network. On a quarterly basis, the BHO submits a report to the state and to the enrollment broker detailing by provider type the changes in the provider network.

Analysis

The state has a number of mechanisms in place to monitor access to care for enrollees. The data warehouse, in particular, is a valuable asset to the state for monitoring trends in enrollment and utilization and identifying potential problem areas. The state uses this resource well. ValueOptions also has many mechanisms in place to monitor access to care.

Conclusion

NorthSTAR has increased access to care for Medicaid consumers. Our assessment found that:

- NorthSTAR reversed a decline in the number of consumers receiving service prior to the program's implementation.
- NorthSTAR penetration rates for the Medicaid SSI population have increased significantly. The penetration rates for the Medicaid TANF population have remained stable despite dramatic increases in TANF enrollment due to changes in Medicaid eligibility policy at the state level.
- NorthSTAR has expanded the array of service alternatives available to Medicaid consumers.
- The provider network has grown over the course of the program, though the availability of psychiatrists in rural areas is an area of concern.
- Consumers are generally satisfied with their access to care.

Chapter 3. Quality Issues in NorthSTAR

The second broad question in this independent assessment is whether the NorthSTAR model has affected the quality of behavioral health services. This chapter addresses that question by focusing on the following aspects of NorthSTAR service quality:

- Selected quantitative indicators
- Consumer satisfaction
- Provider satisfaction
- Quality assurance and monitoring methods
- External quality review organization studies

These five areas will be discussed in the following sections.

Quantitative Measures

In this assessment, we study service utilization data and provider and consumer information within NorthSTAR to ascertain program trends over the three-years of the program. The issues examined include: inpatient hospital utilization; number of inpatient bed days, emergency room and 23-hour observation unit utilization; utilization of a number of outpatient services—medication services, rehabilitation and ACT services, service coordination, prescriptions, new generation drugs; follow-up services to emergency room visits and to hospitalization; and recidivism after emergency room visits and hospitalization. These indicators will be discussed in order below.

Inpatient Hospital Utilization[23]

One measure of the quality of a service delivery model is the extent to which it steers services away from inpatient toward more flexible outpatient care. Our first set of inpatient service indicators is the proportion of consumers requiring a community hospital stay to total service claimants. As a percent of the total number of NorthSTAR service users, community hospital[24] inpatient users trended down over the three-year period, beginning at a bit over five percent in December 1999 and ending at around three percent in November 2002.

Figure 3.1 shows a significant spike early in the program before a downward trend begins. Figure 3.2 shows a similar downward trend for state hospital inpatients[25] as a percentage of total service claimants. Conversely, in the pre-NorthSTAR period, inpatient claimant data demonstrate an upward trend (see Figure 3.3).

The NorthSTAR state office explains the initial spike in inpatient services as evidence of a "fragmented" community services network and insufficient controls on inpatient services. They explain that the downward trending represents the growth in the

community services network, a system more capable of appropriate diversion, and thus the prevention of client deterioration to the point of requiring higher levels of care.

Indeed, a closer look at inpatient and community services encounter data[26] indicates that as inpatient hospital service encounters decreased over the study period, community services encounters, including rehabilitation and ACT claims (discussed separately below), increased (see Figures 3.4 and 3.5).

Figure 3.1
Community Hospital Inpatient Claimants to All Claimants

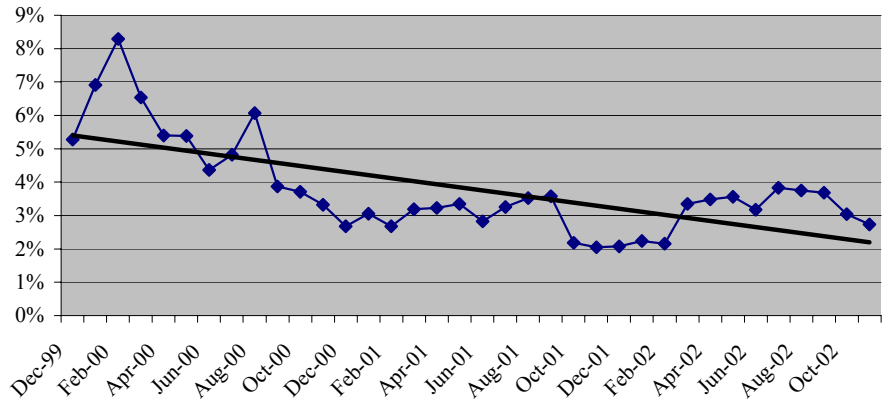


Figure 3.2
State Hospital Claimants to All Claimants

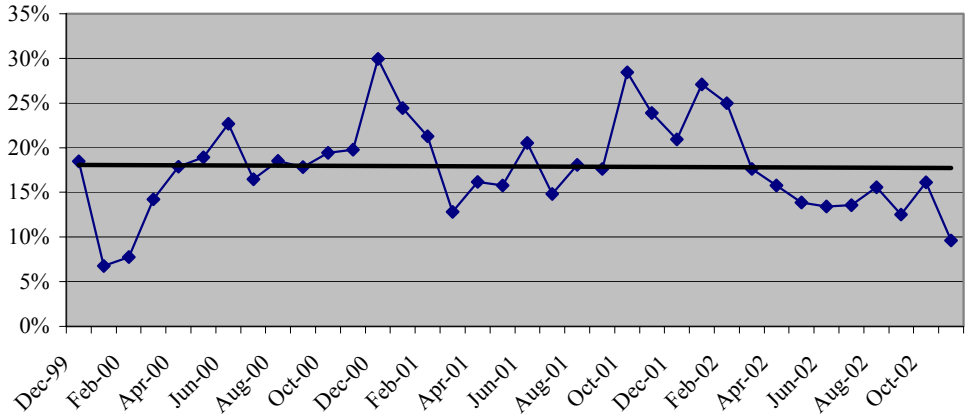


Figure 3.3
Pre-NorthSTAR Community Hospital Inpatient Claimants to All Claimants

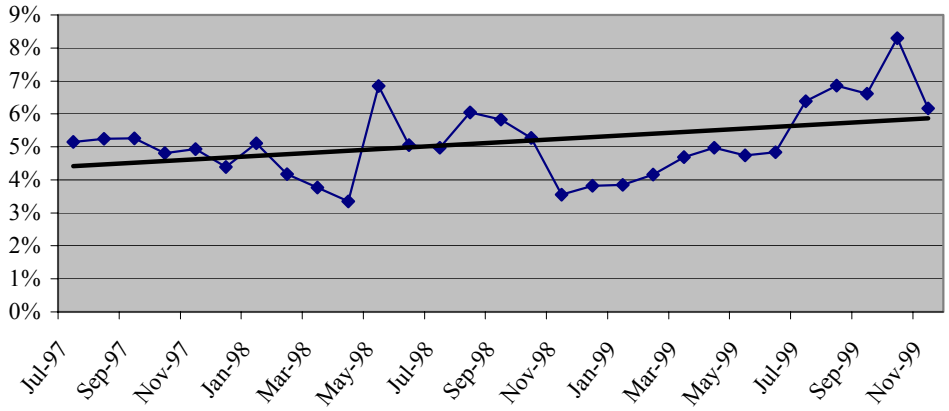


Figure 3.4
Inpatient Hospital Encounters to All Encounters

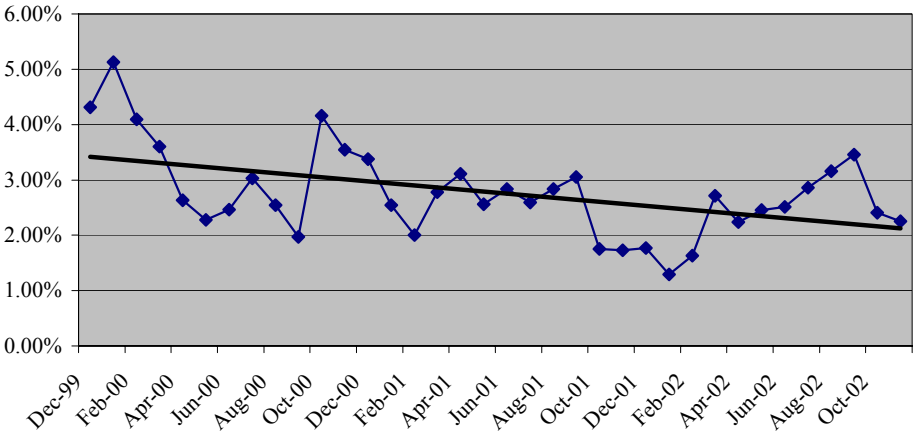
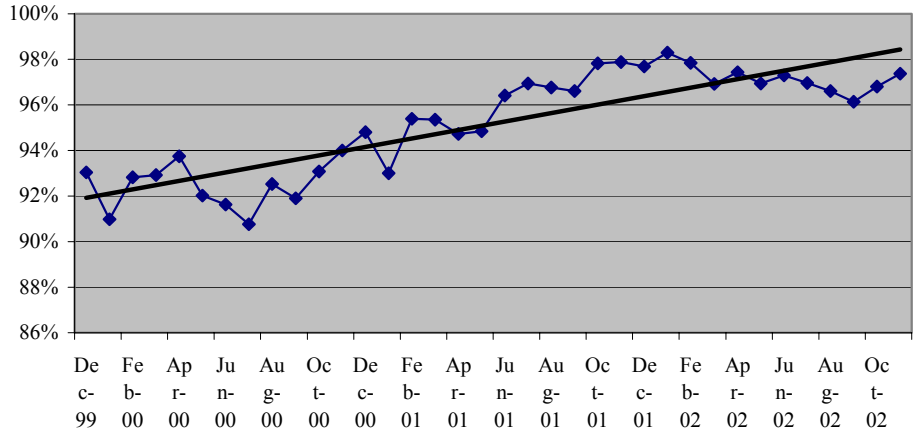


Figure 3.5
Community Service Encounters to All Encounters



Inpatient Bed Days[27]

The second quantitative measure of inpatient use is the number of bed days used in the service system. Over the three-year period, average monthly bed days at community hospitals trended downward, dropping from a little under 6.5 days in the beginning to five days in the end, with an average of 5.5 days over the period (see Figure 3.6). This trend holds for state hospital days as well, although the methodology used probably enhances the representation of the decline (see Figure 3.7).[28] It is interesting to note that in the pre-NorthSTAR period, monthly bed days in community hospitals were trending up slightly (see Figure 3.8).

Figure 3.6
Average Community Hospital Bed Days (No State)

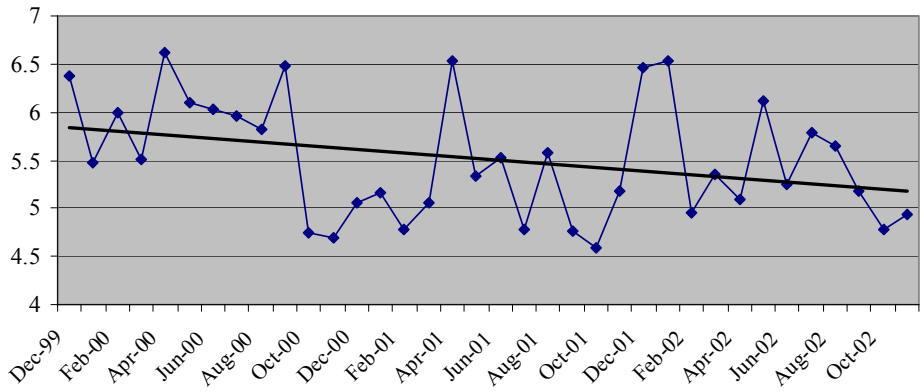


Figure 3.7
Average State Hospital Bed Days

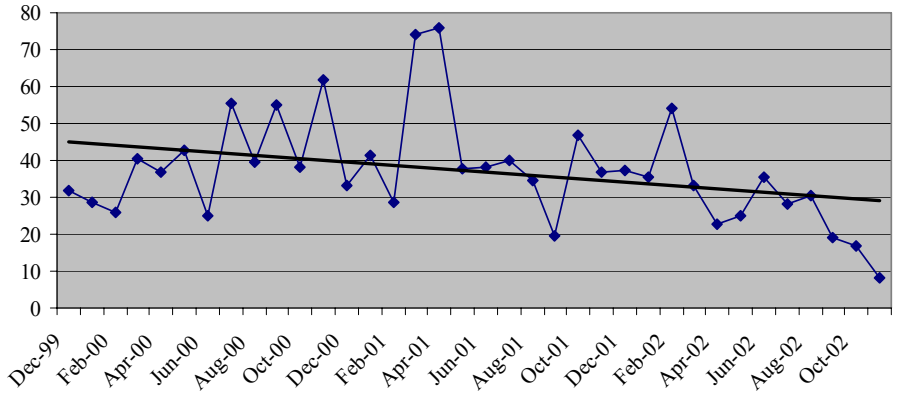
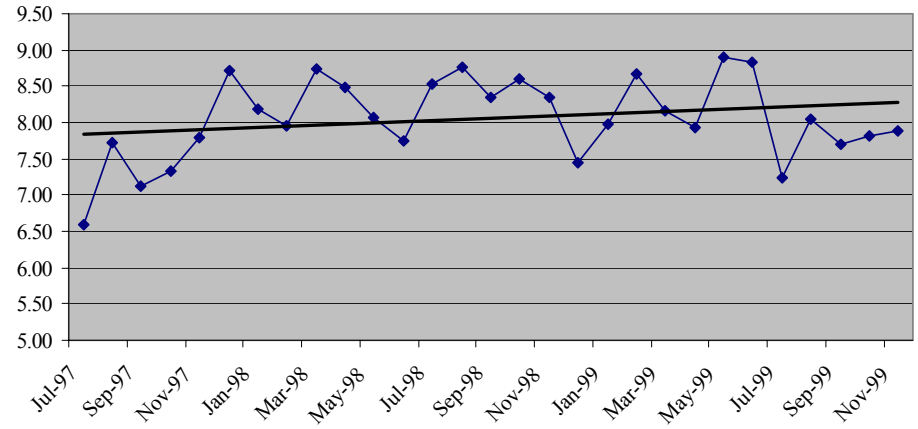


Figure 3.8
Average Pre NorthSTAR Community Hospital Bed Days (No State)



Emergency Room and 23-Hour Observation Unit[29]

The proportion of emergency room (ER) and 23-hour observation service users has trended up over the three-year study period, beginning at about 1.4 percent of total

service users, and ending at around 2.5 percent, with an average of 2 percent (see Figure 3.9).

While the ER and the 23-hour observation unit are at some level similar services, they represent very different operations within the NorthSTAR model. While ER services are an expensive last resort for dealing with behavioral health crises, the 23-hour observation unit is designed as a gatekeeping mechanism to the even more expensive inpatient services. When looked at separately, encounter claims data[30] shows that ER claims have trended slightly downward over the study period, while 23-hour observation unit encounter claims have increased dramatically following its implementation in March 2001 (see Figures 3.10 and 3.11).

The increase in 23-hour observation services, along with downward trends in ER services and inpatient services, is what one would expect to see over time if a managed care system is operating effectively. The 23-hour observation unit is apparently serving its intended function, screening and diverting consumers to more appropriate levels of care.

Figure 3.9
ER & 23-Hour Observation Claimants to Total Claimants

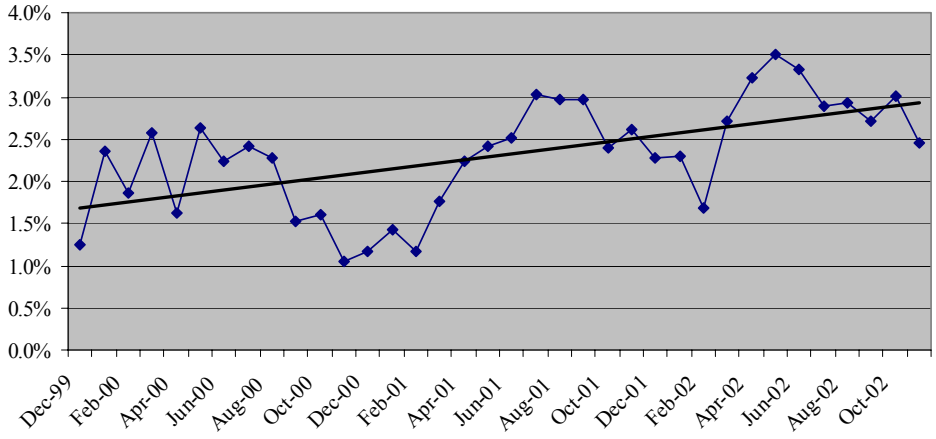


Figure 3.10
Emergency Room Encounter Claims

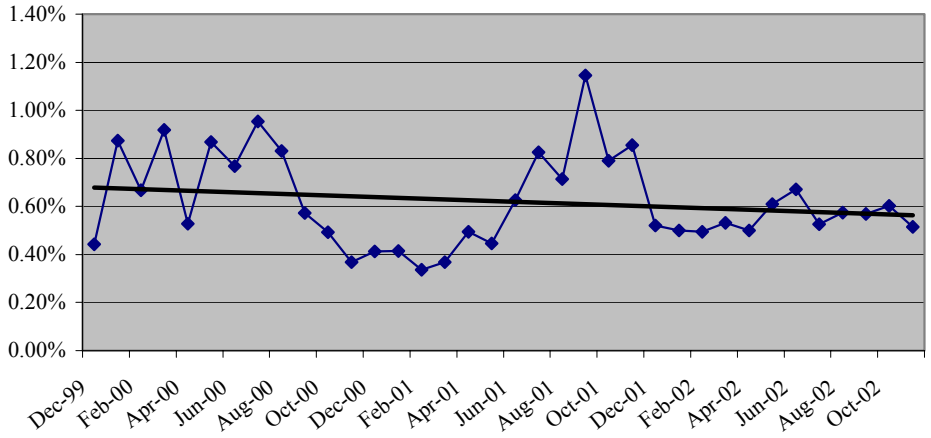
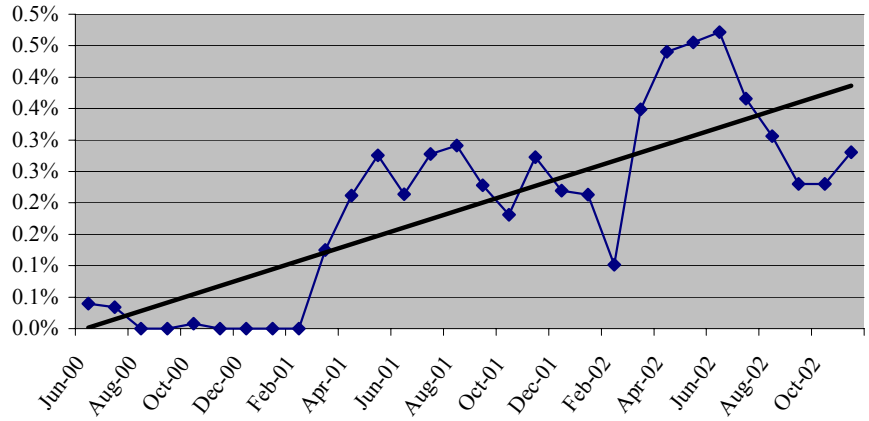


Figure 3.11
23-Hour Observation Encounter Claims

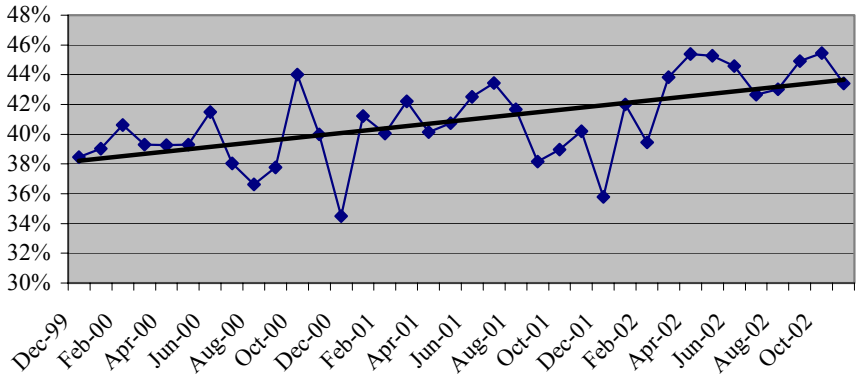


Medication Services Claims[31]

On average, 40 percent of NorthSTAR Medicaid consumers receive medication services, representing a slight upward trend from about 38 percent in the beginning to about 43 percent in the end of the three-year period (see Figure 3.12). Interestingly, they seem to

have risen more in rural counties, from about 27 percent to about 49 percent, which reflects better access to psychiatrists, despite their reported decline in numbers. According to the NorthSTAR state office, psychiatrists are being "imported" from urban counties, primarily by the SPNs.

Figure 3.12
Medication Service Claimants to All Claimants



Rehabilitation and ACT Services Claims[32]

We found upon initial examination of claimant data that the percentage of claimants receiving rehabilitation services has decreased over time. Except for an initial spike, rehabilitation claimants as a percentage of total claimants declined from around 12 percent in December 1999 to about nine percent in November 2002. (See Figure 3.13.) Pre-NorthSTAR data shows the percentage of rehabilitation service claimants hovering between 17 percent and 24 percent for that period. (See Figure 3.14.)

The NorthSTAR state office attributed the early spike in rehabilitation services to the broad definition of clinical need for rehabilitation and generous pre-authorization initially. Once it realized there was a problem, the BHO restricted pre-authorization to ensure appropriate usage of the service. Seemingly, rehabilitation service levels have stabilized following policy changes. This stabilization is what one would expect to see in a managed care market as it strives to become more efficient. However, another expected effect of managed care would be an actual increase in important community services such as rehabilitation, which is not observed in the overall mix of service claims.

Thus, we took another look at rehabilitation encounter claims data,[33] focusing entirely on the SSI population. The rationale is that SSI individuals are the most in need, so the community emphasis of managed care should be more prominent if the model is

successful. Indeed rehabilitation encounter claims and ACT encounter claims both increased over the study period, from just over 35 percent to just over 45 percent and from just over 0.5 percent to just over 3 percent, respectively (see Figures 3.15 and 3.16). Such increases in key community services are a positive quality indicator.

Figure 3.13
Rehabilitation Claimants to All Claimants

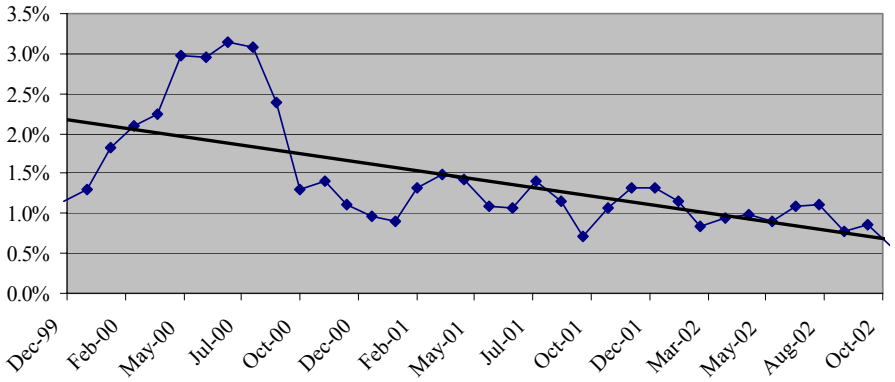


Figure 3.14
Pre NorthSTAR Rehabilitation Service Claimants to All Claimants

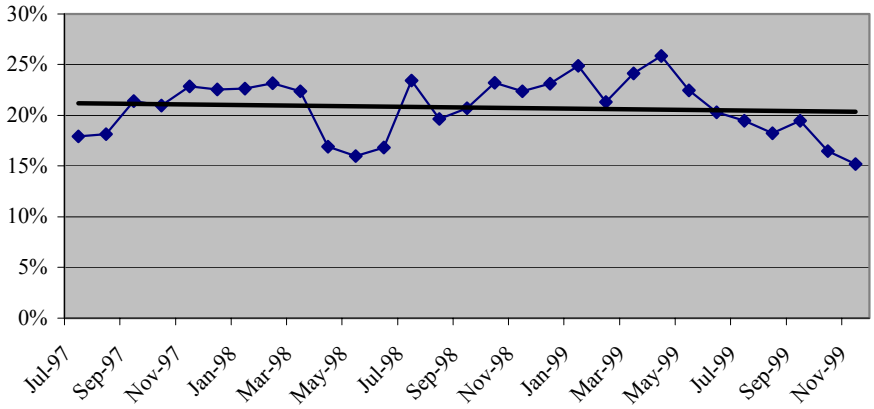


Figure 3.15
Rehabilitation Encounters to All Encounters, SSI Population

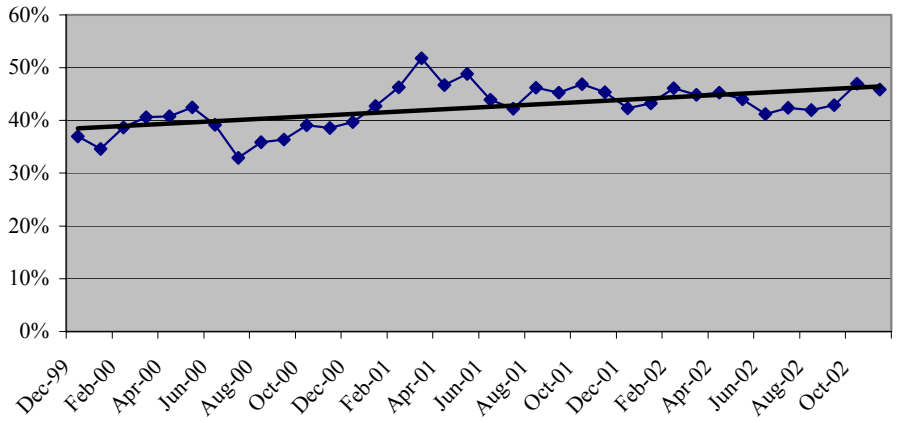
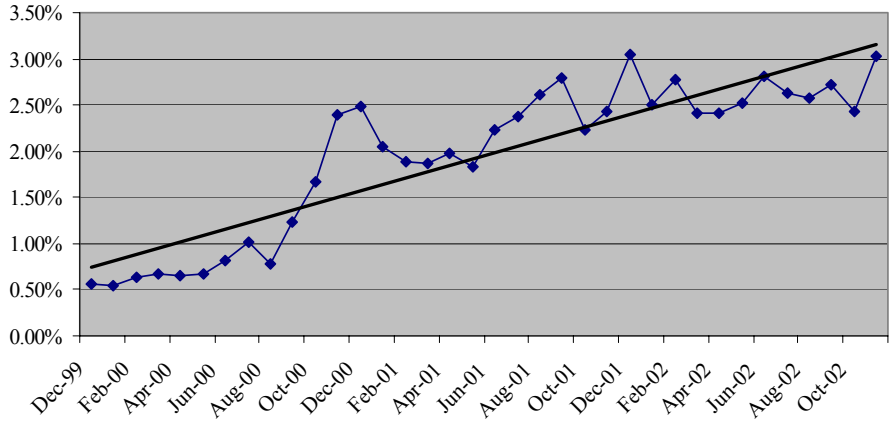


Figure 3.16
ACT Encounters to All Encounters, SSI Population

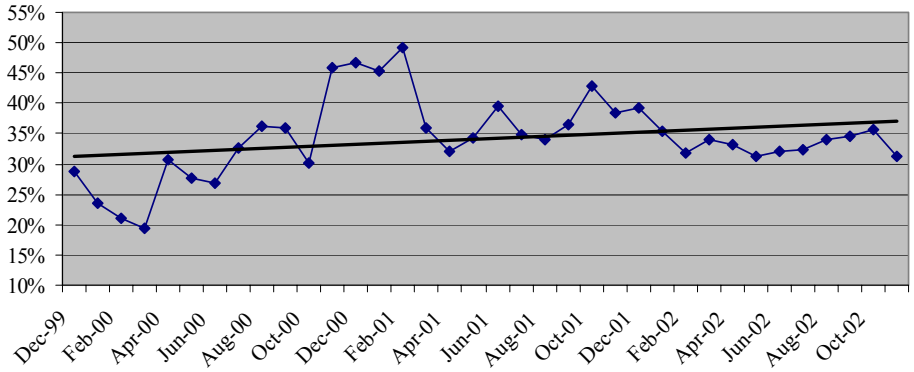


Service Coordination Claims[34]

The users of service coordination as a proportion of total claims has risen slightly over the three-year period (see Figure 3.17). The percentage of service coordination claims started at around 29 percent in December 1999 and rose to 31 percent in November 2002, with a three-year average of 35 percent of claims. Collin County appears to have been driving the increase. A spike in claims in October 2000 to April 2001 was attributed by

the NorthSTAR state office to the departure of Magellan (one of the BHOs). To facilitate the transfer of customers, ValueOptions used liberal standards for service coordination. Service coordination immediately shot up to rates above anticipated levels. When ValueOptions recognized the problem, it modified the payment structure to require pre-authorization in all but hospital discharge situations.

Figure 3.17
Service Coordination Claimants to All Claimants



Prescription Claims[35]

Behavioral health prescription claims for Medicaid consumers as a proportion of total Medicaid claims in NorthSTAR appeared to trend down, beginning around 60 percent in December 1999 and ending around 40 percent in November 2002, with an average of 40 percent (see Figure 3.18). This seems counterintuitive since one would expect a managed care environment to be conducive to a shift from inpatient care to an emphasis on community-oriented services combined with the maintenance of mental health by psychotropic medication.

A likely explanation for this counterintuitive finding is the increase in the number of TANF service utilizers. As demonstrated in the previous chapter, TANF enrollees grew at a significant rate over the life of NorthSTAR. Even though as a group their penetration rate was lower than the other risk categories, as an aggregate, their service utilization claims totals are large. Further, as a group, TANF consumers are not heavy utilizers of prescriptions. Their effect then is seen in Figure 3.18 by bringing down the proportion of prescription claims to total claims.

We further examined TANF service utilization data, as well as prescription data to support this explanation. TANF utilization data confirmed significant growth in service utilization (see Figure 3.19). The top three areas of utilization for TANF individuals are community support services, individual psychotherapy, and face-to-face contact.

We looked at prescription usage data with and without TANF enrollees as part of total prescription claims. Prescriptions per 1,000 total Medicaid enrollees remained flat over the three years. With TANF removed from the total enrollee population, prescriptions per 1,000 increased over the period (see Figures 3.20 and 3.21).

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Figure 3.18
Prescription Claims to All Claims

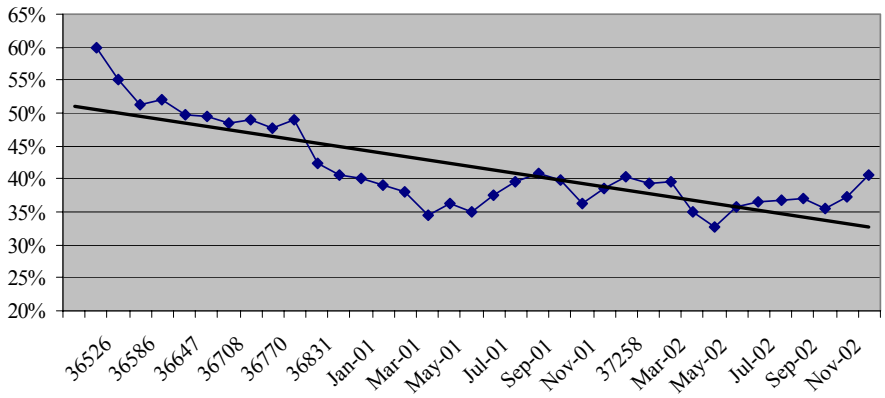


Figure 3.19
TANF Service Utilization

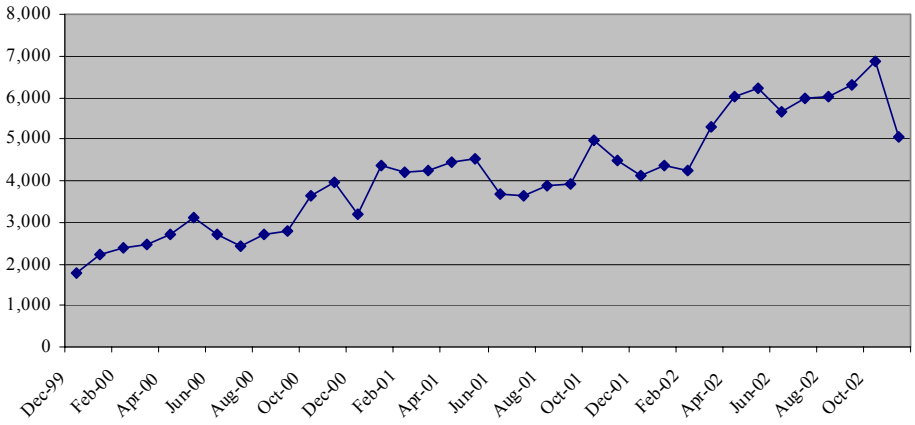


Figure 3.20
Prescriptions Per 1,000 Medicaid Enrollees - All

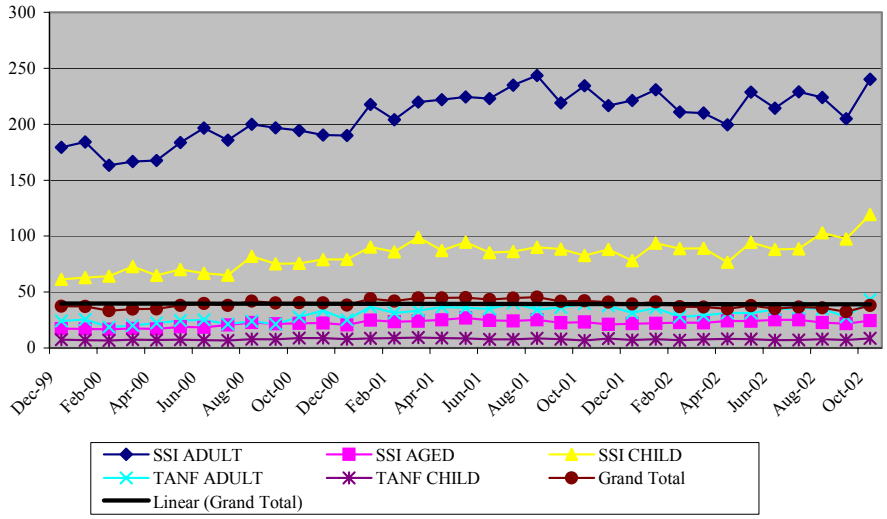
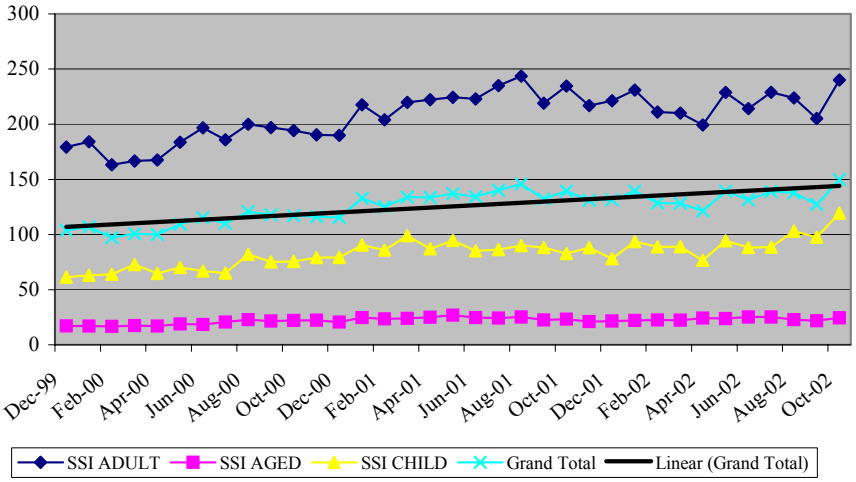


Figure 3.21
Prescriptions Per 1,000 Medicaid Enrollees – Minus TANF

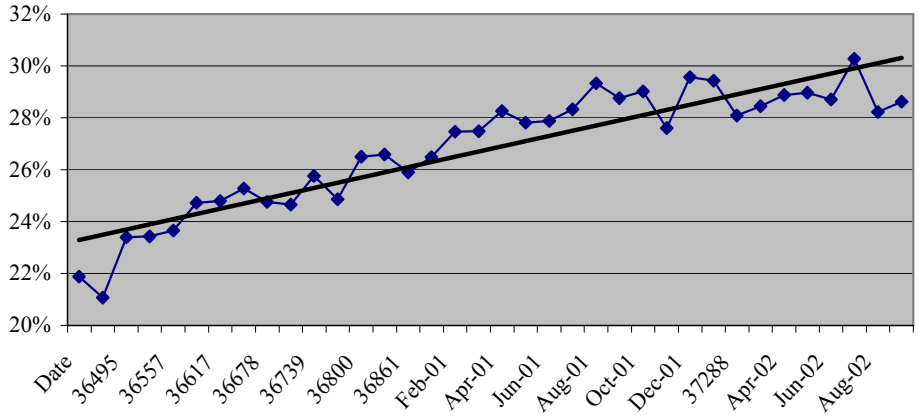


New Generation Claims[36]

As a proportion of total prescription claims, new generation claims grew steadily over the three-year period, from around 22 percent to about 28 percent (see Figure 3.22).

The NorthSTAR state office attributed this growth to new generation drugs being the "drug of choice" for a large proportion of the Medicaid population with mental illness. As knowledge of their effectiveness grows, more doctors prescribe them.

Figure 3.22
New Generation Medication Claims to Total Prescription Medication Claims



ER and 23 Hour Observation Follow up[37]

Follow up in the community services network within 30 days of discharge from the ER or 23-hour observation unit showed some improvement over the study period. The proportion of ER and 23-hour observation claimants with follow up within 30 days of discharge began around 29 percent and ended around 50 percent. (See Figure 3.23).

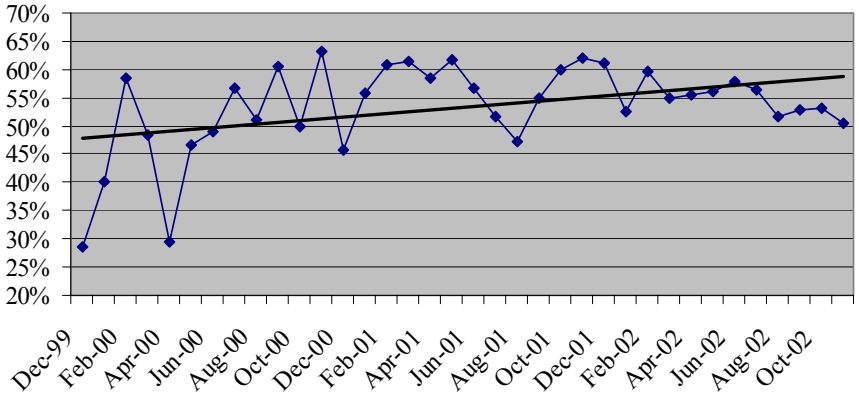
The NorthSTAR state office explained that while these numbers are lower than they would hope, the ER and 23-hour observation service areas are where you expect to see the most non-compliant consumers and these are consumers who, by definition, are not likely to follow up. Because the BHO may not see much payoff and the problem may be somewhat intractable, ValueOptions may not be putting its efforts here.

While these are reasonable explanations for apparent poor performance, the performance cannot be identified as acceptable without additional work and understanding. While the state reports studying the situation and evaluating incentives as one possible avenue to

address the problem, a better understanding of the situation, implications, and processes is necessary to either adequately explain why the performance is acceptable or what an acceptable level of performance is and or how it should be achieved.

Figure 3.23

Ratio of ER and 23-Hour Observation Follow Up Within 30 Days to Total ER and 23-Hour Observation Claimants



Hospital Follow up[38]

Follow up in the community services network within 30 days of discharge from a community or state hospital has increased slightly over the period studied. The percentage of community hospital claimants with a community follow up within 30 days of discharge begins at around 29 percent in December 1999 and ends at around 35 percent in November 2002, although it fluctuates frequently (see Figure 3.24). The percentage of state hospital claimants with a community follow up within 30 days of discharge begins at around 39 percent, and ends at around 50 percent (see Figure 3.25).

Both percentages end lower than would be desired. The NorthSTAR state office points out that some consumers could be receiving follow up in the primary health system and would therefore not show up in NorthSTAR data. NorthSTAR staff are working on ways to capture that data, and as noted above, are in the midst of further study regarding follow-up care.

With regard to follow up in general, it should be noted that as community services become more effective at preventing consumer deterioration to the point of needing inpatient care, the total number of admissions goes down. Additionally, those that do get admitted are arguably more sick, chronic, and/or non-compliant. Thus, follow-up care for a population of more difficult to treat consumers may never grow at a desirable rate.

Figure 3.24
Community Hospital Follow Ups Within 30 Days to all Community Hospital Claimants

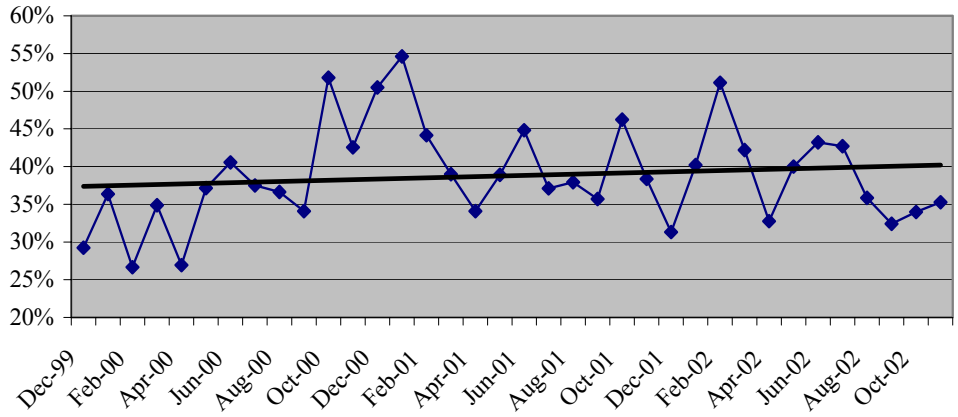
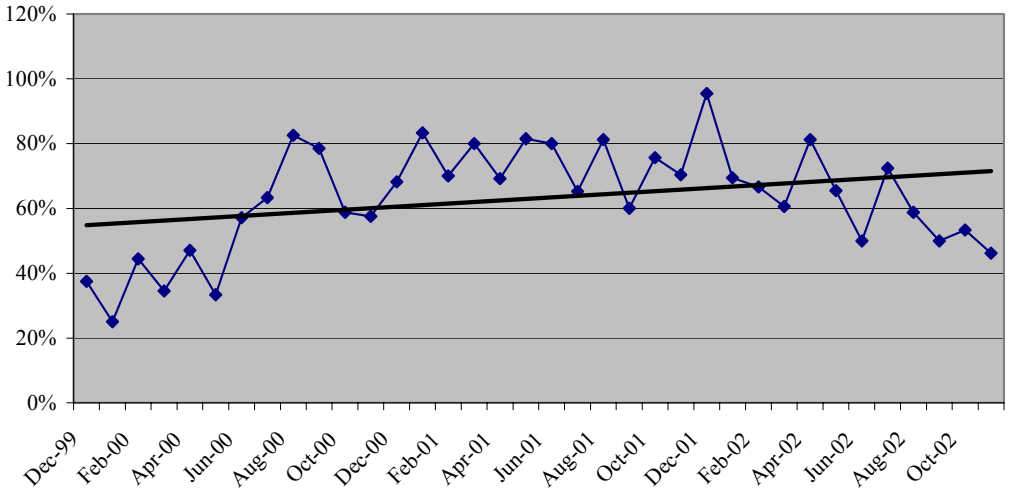


Figure 3.25
State Hospital Follow Up Within 30 Days to All State Hospital Claimants



ER and 23-Hour Observation Recidivism[39]

The proportion of consumers returning to the ER and 23-hour observation unit within seven, 30, and 90 days following discharge from the ER and/or 23-hour observation unit has trended upward. The increase for returns within seven days is from near zero to 10 percent; for returns within 30 days is from four percent to 15 percent; and for returns within 90 days is from 17 percent to 20 percent over the study period.

Community Hospital Recidivism[40]

The proportion of consumers returning to a community hospital within seven, 30, and 90 days following discharge from a community hospital trended down in all categories. The decrease in returns within seven days is from just below 10 percent to near zero; for returns within 30 days, it begins at around 18 percent and ends at around five percent; and for returns within 90 days, it begins at around 22 percent and ends at around 10 percent for the study period.

State Hospital Recidivism[41]

Returns to state hospitals within seven, 30, and 90 days of discharge from a state hospital also trended down very slightly: for within seven days, the percentage stays below 10 percent most months; for within 30 days, the percentage stays below or around 20 percent most months; and for within 90 days, the percentage fluctuates mostly between 20 and 40 percent.

Consumer Satisfaction

NorthSTAR consumer satisfaction was analyzed through a number of sources. Results from the 2000-2002 TDMHMR Adult Mental Health Surveys, the 2002 DANSA Adult Mental Health Survey, and the TDMHMR Child and Family Surveys were examined. All of these surveys include both Medicaid and non-Medicaid consumers. Additionally, findings from our consumer focus groups were reviewed and included where relevant. Only Medicaid NorthSTAR consumers participated in the focus groups.

TDMHMR Survey

In 2000, TDMHMR completed an adult mental health consumer survey. For the 2000 survey, TDMHMR used a separate sampling of the NorthSTAR population in order to get NorthSTAR's results in comparison to the rest of the state. NorthSTAR's return rate was only 22 percent, while the statewide rate was 35 percent. TDMHMR concluded that NorthSTAR's consumer agreement rates in each of the four categories (outcomes, access, quality/appropriateness, satisfaction) were lower than the statewide consumer agreement rates. However, a comparison of the results for the two larger counties in NorthSTAR, Dallas and Collin Counties, with results from the 1999 Consumer Satisfaction Survey (pre-NorthSTAR[42]) found agreement rates to be stable. TDMHMR noted that the results

could not be taken with high confidence because of the size of the samples for the NorthSTAR population.

In 2001 and 2002, NorthSTAR also scored below statewide averages on all four domains, doing worse in 2001 than in 2000; however, by 2002, scores were much closer to statewide averages, with the Satisfaction domain score being within 0.3 percent, and Quality being within 3 percent of the statewide scores. NorthSTAR's return rate improved in the latter two years (21 percent, compared with 31 percent statewide in 2001, and 28 percent compared with 39 percent statewide in 2002), but remained below the statewide average.

It is important to point out that NorthSTAR has improved from 2000 to 2002 in all four areas, and the scores on satisfaction were never below 71 percent, and most recently are 87 percent. Similarly, for the Quality/Appropriateness domain, the score never dropped below 68 and is now 81 percent.

DANSA's Consumer Satisfaction Report

Due to methodological concerns with the TDMHMR survey and because the NorthSTAR population differs from that of the rest of the state due to the inclusion of consumers with primary diagnoses of chemical dependency, DANSA conducted its own customer satisfaction survey in 2002.[43] Although DANSA cautioned that their findings could not be readily compared with TDMHMR's due to methodological differences, they did report finding higher agreement rates than in the TDMHMR survey on all four domains. Results for the quality and satisfaction domains were higher than the statewide averages.

TDMHMR Child and Family Surveys

In the 2002 fiscal year, TDMHMR administered surveys to children over 13 years old and to parents or caregivers who were eligible for services through the network of community mental health services statewide, including the NorthSTAR area.[44]

The survey had a 28 percent response rate, and although there were small rating differences, NorthSTAR consumers rated most of the domains[45] at a level that was below the state average. However, NorthSTAR consumers rated the program higher in the areas related to satisfaction with participation in treatment and desirable outcomes of treatment. Only about half of the NorthSTAR parents (55.2 percent) responded that their children had Medicaid insurance. The results of this study were to be used to help establish a baseline for comparison for future years.

Our Consumer Focus Groups

Our consumer focus groups indicated that NorthSTAR consumers are satisfied with the quality of care received. The overwhelming opinion of consumers is that behavioral health care is improved in NorthSTAR, compared with the previous system. Consumers believed this to especially be true for dually diagnosed (mental illness and chemical dependency) consumers.

Areas where consumers expressed or demonstrated concerns with the NorthSTAR system include:

- Limited understanding about the system;
- Unclear or lack of understanding of the complaint process;
- Lack of "say" in their treatment; and
- Lack of knowledge about avenues for involvement in the NorthSTAR system (only one consumer participant was a member of an advocacy group).

Member suggestions for improvement included:

- More time with providers during appointments; and
- More education about the NorthSTAR system and available benefits.

Analysis

For all surveys reviewed, the majority of consumers report being satisfied with quality of care. In fact, over the three-year study period, consumer ratings of satisfaction and quality in the TDMHMR Adult Mental Health Survey have increased to over 80 percent. Our consumer focus group results support this finding.

Consumers in the focus groups expressed or demonstrated a lack of knowledge or understanding about the NorthSTAR system as a whole, how the system works, what benefits they are entitled to, and how to file complaints. It is not clear from the consumer focus groups the extent of the lack of knowledge, but it appears to be problematic enough that further investigation is warranted.

Provider Satisfaction

One external survey of provider satisfaction has been completed to date. This survey, as noted earlier, was conducted by the EQRO. We examined this survey report and conducted NorthSTAR provider interviews to determine provider satisfaction with the NorthSTAR system.

EQRO Provider Survey

Texas Health Quality Alliance (THQA), the 2000-2001 EQRO, performed a provider satisfaction survey in 2001. THQA had a 74 percent response rate from a representative sample[46] (by type of provider). It found that at least half of respondents were satisfied or very satisfied with coverage levels for treatment/clinical services, and with the level of customer service received; providers were dissatisfied with the amount of administrative work required, and with reimbursement rates; providers, as contrasted with other Medicaid managed care providers in the state, expressed lower levels of satisfaction as the proportion of Medicaid managed care clients increased in their practices[47].

Our Provider Interviews

Through our provider interviews, we found that providers feel that NorthSTAR is a positive step forward in terms of access and quality compared with the previous system. Providers felt that given the limited funding, NorthSTAR is doing the best it can. Some providers did express the belief that quality might be sacrificed in return for increased access, but that overall it is a worthwhile system that would greatly benefit from increased funding aimed at quality of care.

Specifically, most providers reported the following positive aspects of the NorthSTAR system:

- Consumers receive quality care, although there is room for improvement.
- Dually diagnosed consumers receive excellent care under the NorthSTAR system.
- Communication among providers is greatly improved; providers have the ability to share information and coordinate services under the supervision and authorization of the BHO, an advantage especially realized for dually diagnosed consumers.
- Authorizations are usually received in a timely manner.
- ValueOptions does a sufficient job in timeliness of reimbursement;
- ValueOptions and NorthSTAR do an adequate job in educating providers regarding the: billing process and working out problems in a timely manner.

Providers felt that the current NorthSTAR system has the following deficiencies/problem areas:

- Inadequate reimbursement rates; some providers reported that they would have to cut back services in order to stay in business.
- Rates for certain services have not been raised since the inception of NorthSTAR.[48]
- Service approval process is too burdensome.
- The mobile crisis unit could better serve the rural areas if it were decentralized. Two providers expressed the opinion that the mobile unit could respond more quickly to consumers in rural areas if the operation were not centralized in Dallas.
- Limited availability of certain residential treatment options, particularly residential detoxification facilities and children's residential facilities. A number of providers expressed the opinion that while community-based treatment is a worthy objective, it should not be at the expense of appropriate residential families.

- Disillusionment with the complaint system; many felt it was largely "a waste of time" to file a complaint; smaller providers did not feel they would be listened to and the larger providers felt it was easier to have complaints rectified informally; some feared retribution

- Lack of knowledge/understanding/faith/in the appeals process.

- Venues for their voices to be heard are in place, but many providers did not feel their opinions were actually taken into consideration.

Analysis

Providers, as would be expected, report dissatisfaction with reimbursement rates and administrative responsibilities. Providers indicate through both the EQRO report and through our provider interviews that they are generally satisfied with quality of care in the NorthSTAR system, although they believe there is room for improvement.

Providers, like consumers, reported a lack adequate knowledge of, and/or a disillusionment with various aspects of the system, especially the complaint and appeals process.

Quality Assurance and Monitoring Methods

Three organizational entities within NorthSTAR have quality assurance responsibilities. They are the state NorthSTAR Office, ValueOptions, and DANSA. This section describes what each of these three entities has put in place in discharging their respective responsibilities.

NorthSTAR State Office

The NorthSTAR office monitors quality of care and quality assurance processes through the following four methods:

- Data Analysis. The NorthSTAR state office consolidates encounter and assessment data, electronically reported by ValueOptions, in the data warehouse. This, and other related data (enrollment, eligibility, drug), is analyzed for trends, outliers and irregularities. Results are reported quarterly in the quarterly Data Book.

- Contract Oversight. The NorthSTAR state office uses the BHO contract, which is reviewed annually, to ensure that the BHO complies with QISMC and NCQA standards and federal requirements, to require annual submission of an updated quality improvement plan, and to set incentives and penalties in specific quality-related areas.

- Complaint consolidation, tracking, analysis and follow-up. NorthSTAR state office consolidates complaints made to the BHO(s), to DANSA, and directly to its office, analyzing them for trends and indicators of systemic problems and conducting follow up with the BHO, providers and consumers to ensure complaint resolution.

- Annual and Occasional Provider Clinical Record Audits. The NorthSTAR state office conducts annual clinical record audits of providers to ensure proper documentation of care. Audits are also conducted on an as needed basis when the data book or a complaint highlights an area of concern.

ValueOptions

ValueOptions, the BHO, is contractually obligated by the NorthSTAR state office to monitor quality through its Quality Assessment and Performance Improvement Program and related activities. Analysis of ValueOptions' quality improvement plan (QIP) illustrates an array of quality assurance committees, programs and evaluation criteria. ValueOptions also employs a number of other quality assurance measures:

- An accredited provider credentialing and re-credentialing process through its national office to ensure continued compliance with credentialing standards set forth by the state;

- Routine treatment record audits as contractually required by the state to ensure compliance with national standards of clinical practice, and as recommended by NCQA, and utilizing evaluation guidelines defined by NCQA; and

- Provider profiling and managed care processes to further ensure quality by monitoring appropriate use of services and to identify over- and under-utilization.

DANSA

DANSA, the local behavioral health authority, is contracted by the NorthSTAR state office to assist with program oversight and to perform, among others, the following quality-related functions:

- Ombudsman services;

- Policy development;

- Planning and development; and

- Monitoring and oversight

Analysis

Through the use of data analysis, contract monitoring, complaint tracking, and auditing processes, the state has an effective quality monitoring system. Utilizing these oversight

mechanisms, the state has, on a number of occasions, effected changes in the NorthSTAR program. For instance, it implemented the 23-hour observation unit based on data analysis findings, it has identified fraudulent providers through its complaint tracking system, and it has through contract oversight identified quality-related deficiencies on the part of the BHO.

In fact this latter point is one of concern. As determined by the 2002 contract review by NorthSTAR state staff, ValueOptions failed to complete the required two annual quality improvement projects, and failed to complete the update of its QIP. It should be noted that both ValueOptions and the NorthSTAR Quality Assurance Director positions experienced turnover during the period in question, which could have contributed to ValueOptions' lack of follow through, and to the state's failure to notice prior to the annual review.

According to NorthSTAR state staff, ValueOptions was notified of the contractual deficiency and complied with the corrective action plan outlined by the state; all quality improvement deliverables have been submitted at this time. Additionally, the state staff made changes to their "tickler" system to avoid similar problems in the future.

Strengths of QA Process

- NorthSTAR's data warehouse is a key element in tracking and trending quality-related data obtained from ValueOptions and utilizing it to support quality management. In fact, it has been identified as a possible model for the rest of the state.
- ValueOptions has many mechanisms in place to help ensure quality of care in the NorthSTAR system.
- The annual contract review process successfully identified shortcomings on the part of the BHO.
- DANSA has received praise for its efforts as ombudsman and in complaint resolution.[49]

Areas for Improvement

- Although ValueOptions' QIP appears to be formalized and well developed it is not clear that it is followed adequately. The failure on the part of ValueOptions to update their QIP annually, and to conduct the two required performance improvement projects was a problem.
- Much of NorthSTAR's quality assurance program is reactive instead of proactive. Data analysis, complaint tracking and audits, while fairly effective means of providing quality oversight do little to stop problems before they arise.

External Quality Review Organization Studies

In compliance with Medicaid guidelines for annual reviews of all Medicaid managed care services,[50] the state Medicaid office, HHSC, contracts with an EQRO for regular reviews

of Medicaid managed care in Texas. The review of the NorthSTAR system is part of this review. Additionally, the NorthSTAR state office is required to contract, through HHSC, with the EQRO to conduct two focused studies per renewal period, and to conduct satisfaction surveys. The EQRO designs the studies in conjunction with the state (based on identified areas of interest or concern), and either the EQRO, ValueOptions, or both implement the study. To date, HHSC has contracted for four EQRO studies involving NorthSTAR.

Since its inception, NorthSTAR has been included in one annual EQRO review, in 2001. For the NorthSTAR part of the 2001 evaluation, the EQRO, THQA in that year, sought to obtain baseline measures of provider satisfaction with NorthSTAR, to obtain information from providers about the impact of Medicaid managed care on their interactions with patients and their practices, and to examine ValueOptions' compliance with QISMC standards. THQA found that the providers in NorthSTAR were satisfied with the timeliness and accuracy of claims payment but dissatisfied with the reimbursement amount. Additionally, they discovered that as the percent of NorthSTAR members in the practice increased, the providers' level of satisfaction decreased.[51] THQA also reported that their onsite review at ValueOptions, which took place September 20-21, 2000, found that ValueOptions overall met, partially met, or was in the process of implementing a majority of the components of the QISMC standards, which NorthSTAR staff report is a significant accomplishment that few others have achieved.

NorthSTAR has contracted for two focused studies since the beginning of the program. The first focused study was on Attention Deficit/Hyperactivity Disorder (ADHD) in children in the NorthSTAR program, designed to examine NorthSTAR's diagnosis and treatment processes for children with ADHD from March 2000 through August 2000. This study examined the diagnosis and treatment process.[52] Key findings were that the large majority of providers had good documentation, used medication effectively; and referred to individual or family therapy often; and a little less than a quarter of the records indicated limited communication between behavioral health and primary care providers. The report included a follow-up/corrective plan, and recommended improvement in documentation of cluster symptoms in order to "improve the understanding of the diagnostic process and clinical treatment," and the promotion of communication between providers.[53]

The second focused study, also reported on in the 2001 annual review report, was the NorthSTAR Pregnancy/Substance Abuse Study, which analyzed the NorthSTAR and STAR programs' handling of the physical and behavioral health needs of childbearing women with substance abuse conditions for the period September 1, 1999 through August 31, 2000.[54] The study found that more than half of NorthSTAR members received physical health services in addition to their NorthSTAR treatments; members who were pregnant consumed very large portions of the STAR services; receiving both prenatal visits and services associated with delivery and postpartum care; and these women accounted for the majority of STAR services provided to the sample population. The study concluded that "the recommended broad spectrum of supportive and specialized treatment services is available for the pregnant members of this study." The report

recommended further study regarding: reducing the number of inpatient admissions, raising the average number of prenatal visits per patient, greater participation by clients in first trimester prenatal care; reducing emergency room visits just before and after delivery, and continuing to receive STAR services after the first NorthSTAR involvement.[55]

Analysis

HHSC contracted with the EQRO for well-developed and well-implemented studies of NorthSTAR in 2000 and 2001. While the NorthSTAR state office and HHSC have effectively utilized the EQRO to conduct a review of Texas Medicaid managed care in 2001, including NorthSTAR, and to conduct focused studies for the first waiver year period, no annual review was conducted in 2002. The NorthSTAR state office anticipates EQRO completion of the two focused studies for the second waiver period by July and will submit them to CMS at that time. The studies are entitled: *Recidivism and Patient Loss at Transition Points in Outpatient Chemical Dependency Treatment* and *Care Coordination for Children in NorthSTAR.*

It should be noted that at the end of 2001, HHSC terminated its contract with THQA and released a request for applications to hire another EQRO. As a result, for 2002, there was no contracted EQRO. The new EQRO, the Institute for Child Health Policy, did not begin until the 2003 fiscal year.

With regard to <<<<<

Conclusion

The NorthSTAR program has, at the very least, maintained the quality of service that was provided before the program was implemented. Our assessment found that:

- NorthSTAR has steered utilization away from inpatient, residential, and ER services and toward outpatient and community-based services, specifically rehabilitation and ACT services for SSI recipients.
- NorthSTAR has effectively implemented a 23-hour observation unit, which appears to be successfully diverting consumers and ensuring most the appropriate level of care.
- During the life of NorthSTAR, utilization of prescription medications has increased, and specifically new generation medications as a percentage of total prescriptions has increased.
- Hospital recidivism appears to have trended down slightly over the life of NorthSTAR.

- NorthSTAR has maintained if not improved consumer and provider satisfaction with the quality of care.

- Consumers and providers alike expressed limited knowledge or information regarding various aspects of the NorthSTAR system, specifically the complaint process. Some providers familiar with the process expressed disillusionment with it.

- While follow-up within 30 days of discharge from a hospital, ER, or observation unit has improved over the life of NorthSTAR, it remains at a less than desirable level.[56] NorthSTAR staff are studying this area further to determine how to effect improvement in this area.

- ValueOptions has experienced deficiencies with timely compliance with the required submission of quality improvement projects and the QIP update.

- The NorthSTAR state office has a comprehensive and effective monitoring process.

- The NorthSTAR data warehouse is a program asset, enabling the NorthSTAR staff to identify service utilization trends and outliers and make any necessary adjustments.

Chapter 4. Cost Issues in NorthSTAR

The third broad evaluation criterion for Medicaid waiver programs is their impact on the cost of providing services. This chapter provides an analysis of cost issues in the NorthSTAR program, divided into the following sections:

- Description of our methodology.
- Summary of previous findings on the cost effectiveness of NorthSTAR.
- An investigation of the cost of providing behavioral health services in the Dallas service delivery area to the Medicaid population with and without the waiver and an analysis of the cost savings associated with NorthSTAR.
- Description and evaluation of the state's upper payment limit (UPL) and rate setting methodology.
- Analysis of the adequacy of the state's efforts to monitor the program's cost effectiveness.

CMS also requests a summary of Medicaid member months and enrollees associated with the program as well as a list of administrative costs. See Appendices C and D respectively.

Summary

In previous research, both the Texas Health and Human Services Commission (HHSC) and Texas Tech University found cost savings have been achieved in the NorthSTAR program. Our research confirmed these findings. Over the four-year waiver period, we estimate that NorthSTAR will result in a savings of more than $20 million. We also conclude that the state's methodology for determining upper payment limits and capitation rates was sound.

Description of Methodology

In order to determine the cost effectiveness of the program we focused our research on the following procedures and research questions as suggested by the CMS guidelines for independent assessments:

- Predicted cost of services without the Medicaid waiver
- Cost of services with the Medicaid waiver

- Cost savings with the NorthSTAR program
- Adequacy of the state's UPL calculation and rate setting methodology
- Adequacy of the state's cost effectiveness monitoring

Our analysis covered four periods of time. These are the same periods used in the state's waiver application:

- Base year prior to the beginning of the NorthSTAR program, July 1998 – June 1999 was used as the base year in the renewal application; July 1997 – June 1998 was used as the base year in the original waiver application
- Bridge period (partial rollout), July 1999 – November 1999
- First waiver period, December 1999 – November 2001
- Second waiver period, December 2001 – November 2003

Previous Findings

Two reports have analyzed and discussed the cost effectiveness of NorthSTAR: 1) a recent report completed by the HHSC examining the results of Medicaid managed care programs in the state; and 2) the independent assessment of the first waiver period completed by a research team at Texas Tech University.

Texas Health and Human Services Commission Report

The first document is a report published by HHSC in December 2002, the *Behavioral Health in Managed Care: A Review of Texas Medicaid Models.* The HHSC report examined:

- **Cost effectiveness**. NorthSTAR was certified to save $3.1 million in the first waiver period relative to what it would have cost to serve the Medicaid population without the waiver. Total savings for both waiver periods (December 1999 to November 2003) was certified at $19.5 million.[57]
- **Financial performance of the behavioral health organizations (BHO).** HHSC requested medical loss ratio (MLR) data from all Medicaid managed care organizations (MCO) in the state. An MLR is the percentage difference between premiums received by an MCO and medical expenses paid by the MCO. The remaining funds are used to cover administrative expenses and profit for the MCO. A tightly managed MCO should have an MLR between 75 and 85 percent, however many MCOs have MLRs of 92 percent or more.[58] An MLR of less than 50 percent raises concerns about a potential effect on access to and quality of care. An MLR

above 85 percent raises concerns that the MCO is not receiving enough revenue to operate in the long term. ValueOptions reports that its MLR for NorthSTAR was 97 percent in the 2001 fiscal year and 91 percent in the 2002 fiscal year. These figures are higher than are considered healthy and might suggest that the program, in its current form, may not be sustainable over the long term. However, the MLR for the Medicaid portion of the program is 80 percent, which is considered a healthy ratio. Furthermore, the downward trend in the overall MLR is a positive sign and ValueOptions is negotiating a contract renewal at this time.

- **Financial impact of managed care on providers.** According to the HHSC report, the cumulative financial impact of Medicaid managed mental health care programs in the state has been minimal, but providers report being generally dissatisfied with reimbursement rates. The report also noted that under managed care, and specifically under NorthSTAR, providers have been reimbursed on a timely basis (in the 2001 fiscal year, 99 percent of claims were paid within 30 days in NorthSTAR).

HHSC's findings about general provider dissatisfaction with Medicaid reimbursement rates are corroborated in the NorthSTAR area by our interviews with providers. In addition, HHSC's findings that in the NorthSTAR area, providers are paid promptly were also supported by our interviews with providers in the NorthSTAR program.

Texas Tech University Independent Assessment

In 2001, Texas Tech University completed an independent assessment of the first NorthSTAR waiver period and found significant savings. Based on the investigators' assumptions, the savings for Waiver Period One was over $17 million and was projected to be $10.6 million for Waiver Period Two.[59] The report also found the rate setting and UPL methodology for the first waiver period to be adequate.

Determination of Cost Effectiveness

As a condition of approval of a Medicaid managed care waiver, a state must demonstrate that the waiver program will not cost more than it would cost to serve the population under the traditional Medicaid fee-for-service program. To evaluate the cost effectiveness of NorthSTAR, we estimated what it would have cost to provide services under the traditional Medicaid program and compared it to the costs under the NorthSTAR program. NorthSTAR results in a savings of more than $20 million over the four-year waiver period. A discussion of our findings, analysis of the source of cost savings, and our methodology in determining with and without waiver costs follows.

Findings

Using the methodology suggested by CMS in the guidelines for independent assessments (described below), we found that NorthSTAR results in a total savings of $20,327,973 over the four-year waiver period (see Table 4.1 below). The figures in Table 4.1 differ

somewhat from those presented by the state in its renewal application because we used more recent data on enrollment and inflation.

In the first two years of the waiver, the actual savings are $3,083,294 and $3,914,970 respectively. In Waiver Year Three, the savings are estimated to be $5,116,623. For Waiver Year Four, savings are projected to reach $8,213,086. See Appendix E for calculations.

Table 4.1 Updated Summary of Cost Savings Associated With the NorthSTAR Program

	Waiver Period		Waiver Renewal Period		Totals
	Actual	Actual	Estimated	Projected	
	Year One	Year Two	Year Three	Year Four	
Cost Without Waiver (estimated)	$31,619,489	$37,025,489	$46,127,457	$56,505,975	$171,278,410
Cost With Waiver	$28,536,195	$33,110,519	$41,010,834	$48,292,889	$150,950,437
Total Savings	$3,083,294	$3,914,970	$5,116,623	$8,213,086	$20,327,973

The calculations of the without waiver and with waiver costs presented in Table 4.1 were made with the methodology used by the state in the waiver renewal application. Deloitte and Touche has certified this methodology. The totals differ somewhat from those in the waiver renewal application because we updated the member month and inflation data with actual figures for as many months as there was complete data.

Analysis of the Source of the Cost Savings

The savings in the NorthSTAR program in the first waiver period are in administrative costs, primarily in Medicaid Administrative Claiming costs. See Appendix D for a summary of the state's administrative expenditures. In the second waiver period, some savings are also achieved in service costs. NorthSTAR improves the cost effectiveness of care by shifting care away from inpatient and residential services toward community based services, which are less expensive.

Medicaid Administrative Claiming

A major source of the cost savings achieved by NorthSTAR is the elimination of Medicaid Administration Claiming (MAC). Under Medicaid, Medicaid agencies may be reimbursed with federal Medicaid funds for certain activities that are required to successfully administer the state Medicaid program, such as outreach, utilization review, eligibility determination, and assessment of a consumer's need for care.[60]

HHSC, the state Medicaid authority, contracts with other state agencies such as TDMHMR for assistance with the administration of the state Medicaid program. Prior to

NorthSTAR, TDMHMR received MAC funds for the administration of mental health services to the Medicaid population in the Dallas service delivery area. In Base Year One (July 1997 – June 1998), the state received approximately $4.2 million in MAC funds. In Base Year Two (July 1998 – June 1999), the state received approximately $5.6 million in MAC funds.[61] In contrast, the state does not receive MAC funds for the administration of NorthSTAR. This results in estimated savings of nearly $17.5 million over the four-year course of the waiver program.[62]

Methodology for Predicting Without Waiver Costs

To predict the cost of services without the Medicaid waiver, we followed the four-step process outlined in the CMS guidelines, replicating factors used by the state in the waiver applications. CMS suggests two methods to calculate total without waiver costs. We chose to use the method that trends fee-for-service costs forward, as it reflects the method used by the state. We used updated actual data where possible. The expenditure data and member months were provided by the state.

The factors necessary for predicting without waiver costs include:

- Change in total number of eligible Medicaid beneficiaries (member months) and utilization based on anticipated policy changes, and
- Changes due to inflation.

For our calculations, the base year period July 1998 to June 1999 was used as a representation of fee-for-service eligibility and utilization because we agree with the state that this base year provides the most reasonable estimates of enrollment and utilization (see discussion under State Rate Setting Methodology below).

To construct the multiplier accounting for the change in beneficiaries and utilization due to systematic changes, we calculated the difference in member months from the base year to the four years under analysis in the two waiver periods for each of the risk groups.

To account for inflation in medical costs we used Consumer Price Index (CPI) data on national inflation, which is what the state used in the waiver renewal application. The state chose not to predict costs using local rates because a Medicaid managed care rollout in the Fort Worth portion of the Dallas Metropolitan Statistical Area had skewed the rates. We used national inflation data for the same reason. The CPI –Urban, All Consumers – Medical Care rate was used for the medical services and the CPI – Urban, All Consumers, All Items rate was used for the non-medical services including rehabilitation services, case management, counselors and TCADA clinic. See Table 4.2 for the inflation rates we used to calculate inflation in program costs and the rates used by the state.

Table 4.2 Comparison of Inflation Rates Used by the Independent Assessment Team and the State

	Rates Used by Independent Assessment Team			Rates Used by the NorthSTAR State Office		
Time Period	All Items	Medical	Commodity	All Items	Medical	Commodity
7/98 - 6/99 to 12/99 - 11/00	1.044	1.055	1.038	1.044	1.055	1.038
12/99 - 11/00 to 12/00-11/01	1.033	1.046	1.021	1.033	1.050	1.021
12/00 - 11/01 to 12/01-11/02	1.015	1.047	1.017	1.029	1.063	1.017
12/01 - 11/02 to 12/02-11/03	1.030	1.049	1.018	1.030	1.061	1.018
12/02 - 11/03 to 12/03-11/04	1.030	1.049	1.021	1.029	1.054	1.021

Methodology for Predicting With Waiver Costs

Total with waiver costs are equal to the member months multiplied by the managed care costs per beneficiary plus the administrative fees for managed care. The method for predicting with waiver costs is otherwise identical to that of predicting without waiver costs. The same utilization and pricing factors were applied to the base year costs and multiplied by costs from the base period July 1998 to June 1999. Administrative costs for the NorthSTAR program were then added.

Description of the state's rate setting methodology

The state used a six-step process that ends with a UPL for each year in the first waiver period. The UPL is based on full capitation with no fee-for-service components. A separate UPL is calculated for each Medicaid group.

Step 1: Getting Base Period Behavioral Health Costs

In establishing base year costs of behavioral health services for the original waiver application, the state compiled one year of baseline data. Data for a second base year, which is the preferred method, was unavailable due to NHIC payment and posting procedures. When applying for a waiver renewal, the state had access to data for two base years and made projections for without waiver costs using both years. In doing so, the state discovered that using both base years resulted in expenditure projections that it considered too high. The state subsequently made projections using the first and the second base year separately. The projections using the first base year were lower than when both base years were used, but based on the program's experience in the first waiver period, the state considered these projections too high also. Projections using just

the second base year of data yielded the lowest expenditure projections and the projections that the state considered most reasonable. The state sought and received approval from CMS to use the just the second base year of data for estimating without waiver costs in the waiver renewal application.

The state obtained Medicaid Management Information System (MMIS) paid claims data for the "base year" from the National Health Information Center (NHIC). NHIC is the claims administrator for the Texas Medicaid program and it coordinates with the Texas Department of Health and HHSC on the management of MMIS, which is a composite of systems, such as claims data processing and utilization review.[63] During the initial waiver application, in order to account for services that were yet to be billed and would be paid for (and therefore would not be in the data obtained from NHIC), the state created a matrix to assess the average length of time it took for behavioral health claims to be paid in the Dallas service delivery area (SDA). The matrix contained the "cumulative amount paid by service category and PMPM rate group and by the number of days between service date and paid date. The lag days were examined for outliers and trends.

January 1997 was chosen as the base month for calculating the "completion factor" in the state's initial waiver application. A separate completion factor was calculated for each base year month and applied to the monthly amount paid by service category. To create the completion factor, the state looked back to earlier months and calculated the rate at which they grew for each month. For example, if the state only had six months of payment information, and looking back to earlier months there was growth in the data for 10 months, the state assumed a 10-month maturation of the data. Assuming the 10-month maturation of the data, the lag factors for months seven to 10 would be added to the six month old data.[64] The state verified the accuracy of this process by calculating and applying a completion factor for the total expenditures by month. Finally, the base year monthly expenditures (adjusted for the lag in unpaid claims) were compiled by:Medicaid type

- County of residence
- Age
- Gender
- Service type

Analysis

The state's use of the second base year of data in the waiver renewal application for calculating without waiver costs resulted in lower UPLs and greater cost savings for the program. Given that in the first waiver period, projections from the first base year were high and did not match program experience, it was appropriate for the state to use the second base year of data in the waiver renewal, which produced the lowest projections.

Step 2: Tabulating Eligible Months in the Base Period

The NorthSTAR state office used projections of Medicaid eligible individuals in the Dallas SDA calculated by the Texas Department of Health.[65] Projections were calculated using a form of Box Jenkins with adjustments made for policy and population growth.

Analysis

Box Jenkins is a standard methodology for making this type of projection.

Step 3: Establishing Rate Cohorts

In order to establish rate cells, the state analyzed cost and utilization trends to identify differences in use among different types of participants in the Medicaid program. The state determined that distinct differences in utilization and cost exist between five different categories of Medicaid recipients. For each of these groups, a separate rate cell was created. The five rate cells are:

- SSI Aged (65+)
- SSI Disabled and Blind – Adult (21-64)
- SSI Disabled and Blind – Child and Adolescent (under 21)
- TANF Adult (21+)
- TANF Child and Adolescent (under 21)

In determining the per capita costs of providing services to this population, the state identified seven distinct categories of service, which are described below. For each of the five Medicaid risk groups, the state estimated the total costs of providing each of the seven categories of service. The seven categories of service are:

- **Psychiatrist/Psychologist.** Includes diagnosis, clinical assessment, psychological testing, pharmacological maintenance, and psychotherapy.
- **Counselor**. Includes family counseling services, group and individual counseling conducted by licensed social workers, licensed professional counselors, and other providers.
- **Rehabilitation Services**. Includes Assertive Community Treatment services, community support services provided by a professional or a paraprofessional, and the rehabilitation components of supported housing and employment services.
- **Case Management**. Includes case management services provided by licensed professional counselors, multi-specialty clinics and other providers.

- **Hospital Inpatient.** Includes hospital admission, inpatient consultation, daily inpatient care, residential detoxification services, and discharge planning.

- **Hospital Outpatient**. Includes emergency room services, 23-hour observation room services, and certain outpatient counseling services.

- **TCADA Clinic**. Includes chemical dependency day treatment services.

Analysis

The purpose of dividing up the Medicaid population into rate cohorts, each with a different UPL, is to more accurately reimburse the BHO for the cost of serving the Medicaid population. Different consumers have different service needs and account for different levels of expenditures. The better the state can group the Medicaid population by how much it costs to serve the consumer, the more accurately it can pay the BHO for serving the population.

In establishing rate cohorts for NorthSTAR, the state examined the utilization and cost patterns along a number of demographic variables, including age, sex, and eligibility. The state determined that sex is not a significant factor in determining costs, but that eligibility type and age are. As such, the state established rate cohorts for five separate categories of Medicaid consumer according to their age and whether they are eligible for NorthSTAR services through SSI or TANF. The state's assignment of rate cohorts was reasonable as one would expect that people of different ages would have different needs as would people who qualify for the program through SSI and TANF. Accordingly, the groups all have significantly different UPLs, which indicates that the groupings were reasonable.

Step 4: Trending Base Year Per Capita Costs Forward

To trend per capita costs forward, the state analyzed trends in pricing (i.e., inflation) and utilization and established factors for projecting changes in both. The factors are applied to each service category for each rate cohort.

Pricing Trends

To project changes in prices, the state used national Consumer Price Index (CPI) medical and non-medical inflation data. The national CPI was used rather than the local CPI because inflation rates in the Fort Worth portion of the Dallas Metropolitan Statistical Area were influenced at the time by a Medicaid physical health managed care rollout, which depressed the local inflation rate for medical services.

Utilization Trends

To project changes in per capita costs, the state also accounted for expected changes in utilization. In accordance with CMS guidelines, the state analyzed expected changes in

utilization resulting from systematic changes in the health care system and changes in public policy.[66]

- **Systematic trends.** Among the systematic trends that the state anticipated would affect utilization were: 1) an expected decrease in number of TANF eligibles; 2) the increasing service utilization and costs for TANF children; and 3) the historical effects of introducing managed care.

- **Policy factors.** These factors were used to reallocate costs based on where the state believed they would most likely be spent. For example in the original waiver application, the state believed that TANF adult hospital inpatient would decrease three percent. The three percent decrease was allocated evenly throughout the other service categories for the TANF adult population.

The state did not adjust costs for policy factors in the waiver renewal.

Analysis

To trend base year per capita costs forward, the state needed to make assumptions about how changes in the health care system, public policy, and pricing would affect program enrollment, utilization, and the cost of service.

The state made a reasonable decision to use national rates inflation rates rather than local inflation rates and the actual experience of the program suggests that the state was correct in using the national rates, which led to more conservative UPLs. Furthermore, the state's projections about inflation were close to actual experience. See Table 4.2 for a comparison of the inflation rates used by the NorthSTAR state office compared to actual experience.

To make estimates about how utilization would change over the course of the program, the state took into account anticipated changes in the health system and public policy. The state made reasonable assumptions about how utilization would be affected by these factors. The state's projections about enrollment for the SSI population were fairly accurate. However, the state's projections about TANF enrollment were low (see Appendix C). This is not surprising as significant policy changes were put into effect during the waiver period that the state could not have anticipated (Medicaid extended eligibility periods for children) and as the state could not have anticipated the economic decline that would boost TANF enrollment.

Under the Balanced Budget Act of 1997, states are permitted to provide continuous eligibility for Medicaid coverage for children, even if their families do not meet the income eligibility requirements.[67] During the 77th Legislative Session, the state enacted S.B. 43, a law that among other things provides for extended eligibility for children in the Medicaid program.[68] Under S.B. 43, children in the Medicaid program were guaranteed continuous eligibility for six months by January 2002 and for 12 months by June 2003.[69] Before S.B. 43 was enacted, all Medicaid recipients (except pregnant women up to two months after birth and newborns up to one year) were required to continuously meet

income eligibility tests.[70] As a result of the implementation of S.B. 43, the number of TANF eligible children qualified for Medicaid increased significantly from 1.3 million in Waiver Year Two (December 2000 to November 2001) to an estimated 1.8 million in Waiver Year Three (December 2001 to November 2002).

In the state's waiver application for NorthSTAR, it did not anticipate the enactment of continuous eligibility for Medicaid children and as such, did not anticipate the increase in TANF children member months that would take place during the waiver period.

Steps 5 and 6: Calculating Fee-For-Service Per Capita Costs for Waiver Period and Capitation Rates

In order to calculate fee-for-service per capita costs for the waiver period, the state multiplied appropriate trend factors from Step 4 by per capita costs and by rate cohorts and category of service from Step 3.

Trends from Step 4 were applied to Waiver Year One costs to determine fee-for-service equivalent costs for Waiver Year Two.

The UPL for each service category for each rate cohort (rate cell) is:

$$\text{UPL} = \frac{\text{Total service costs + BHO administration and profit (PMPM)}}{\text{Projected "eligible months" for the rate cell}}$$

The per-member-per-month (PMPM) payment given to the BHO covers direct service costs as well as the BHO's administration and profit. In the BHO application process, the state required that BHOs identify the minimum amount that they would spend on direct service costs (the direct service claims target). The difference between the PMPM and percent proposed is available for administration and profit.[71]

Analysis

The state's calculations of fee-for-service per capita costs for the waiver period and the UPL were accurate.

As part of the determination, actual inflation rates (CPI data) against the projected inflation rates used in the application to determine if the state assumed reasonable rates. The inflation rates used by the state were close to the actual experience (see Table 4.2).

In the first waiver period, the PMPM rate paid to the BHO was, by contract, equal to the UPL for each eligibility category. The UPLs in the original waiver application were based solely on FFS data. In the waiver renewal, the state calculated the UPLs based on FFS data and then made some adjustments based on actual managed care experience to produce the waiver payment rates. The payment rates for some categories were higher than the UPLs for those categories, but the composite payment rate was lower than the composite UPL. As a result, while savings during the original period can be attributed entirely to MAC and other administrative costs, in the waiver renewal period, additional

savings are achieved in service costs. The state is in the process of having its data warehouse certified for rate-setting purposes and in the future, rates will be set primarily based on managed care experience.

Waiver Renewal Update

When the state renewed the NorthSTAR waiver in 2001, it made several adjustments in its calculations. A legislative change in the TANF enrollment and renewal process changed the projected caseload information as listed in the renewal application. The change took effect in early 2002 and eligible months increased from the originally predicted TANF child and adults.[72]

In the waiver renewal, the state also changed the base year that it used to project costs. At the time of the original application, the state used July 1997 to June 1998 as a base year. It would have used two base years of information, but the data for July 1998 to June 1999 was not yet complete. At the time of the waiver renewal application, the data for the second base year was available. When the state made projections using both base years, however, the projections were higher than could be considered reasonable. Using only the second base year, the projections were much more conservative and reasonable. As the state could not determine why there was a substantial change in expenditures between the first and second base years, it decided to only use the second base year, which provided the lowest and most reasonable UPLs.[73]

Adequacy of state's cost effectiveness monitoring

The state monitors costs using encounter data in the data warehouse, financial and statistical reports from the BHO, and audited expenditure reports to the Texas Department of Insurance. The state has developed a comprehensive data warehouse that is in the process of being certified by the EQRO for accuracy. The NorthSTAR state office anticipates that with a few minor adjustments, the data warehouse will be certified for use in rate setting. The NorthSTAR state office plans to transition from primarily FFS based rate setting during the upcoming waiver cycle.

Analysis

The state has a number of mechanisms in place to ensure NorthSTAR's cost-effectiveness. The EQRO certification process of the encounter data is a validation of this component of the state's monitoring system.

Conclusion

NorthSTAR has resulted in a significant cost savings compared to what it would cost to provide behavioral health services in the Dallas SDA under the traditional Medicaid fee-for-service system. Total savings associated with NorthSTAR are estimated to be nearly $21 million over the four-year waiver period. The state reached similar results in calculations that were certified by Deloitte and Touche and published in a recent report by the HHSC.[74]

Our analysis also indicates that the state used reasonable and adequate methodologies for setting the UPL.

Chapter 5. Issues and Recommendations

The effects of NorthSTAR on access, quality, and cost of Medicaid behavioral health services were discussed in the previous three chapters. This chapter identifies the major themes of the findings in this independent assessment. The first three sections below discuss the program strengths as well as the areas in need of improvement for each of the three evaluation components. The fourth section provides additional observations by the independent assessment team. Recommendations are presented in the last section.

Access

- **Program Strength #1: Improvement in access to services**

One of the most unambiguous observations in this independent assessment study is that access to behavioral health services has increased under the Medicaid NorthSTAR program. This observation is demonstrated by a comparison of service utilization records, before and after the program by Medicaid enrollees in the seven-county SDA. As documented in Chapter 2, both the aggregate level of service claims and the penetration rate steadily declined over the two-year period prior to NorthSTAR, but those worrisome trends have been reversed since the beginning of the year 2000, when NorthSTAR went into effect. This improvement is observed for all Medicaid eligibility categories, but is the most pronounced among SSI beneficiaries, who are also the most in need of service.

The quantitative improvement in service utilization is corroborated by the perceptions of both providers who were interviewed by the independent assessment team and by the consumers who participated in our focus groups. The evaluation team believes that the success in access improvement is related to a second strength of NorthSTAR.

- **Program Strength #2: Improvement in provider network**

Prior to NorthSTAR, mental health services were channeled through the local Community Mental Health and Mental Retardation (MHMR) Centers, chemical dependency services, and a number of individual providers. While Medicaid recipients could go to any provider accepting Medicaid patients, few providers were accepting Medicaid patients. By contracting with a network of facility-based and individual providers, ValueOptions has made it more likely that Medicaid consumers will be successful in finding a provider. Under NorthSTAR, consumers have access to eleven SPNs in the area, as well as many individual providers.

- **Program Strength #3: Urban-rural integration of services**

An important aspect of NorthSTAR's expansion of the provider network is the fact that, by integrating the formerly separate service delivery areas of urban, suburban, and rural community MHMR centers, the program has introduced economies of scale and has allowed rural areas to borrow strength from the availability of providers in more populated areas.

Part of the advantage of geographic integration is that, under NorthSTAR, rural Medicaid consumers have the option of traveling to Dallas and other counties to obtain services. A second and equally important element of this geographic economy of scale results from the introduction of mobility and flexibility of providers. For example, the service network has made it possible for some urban psychiatrists to have "clinic days" in outlying areas. The Mobile Crisis Unit is another example of taking the provider to the consumer instead of the other way around as in the traditional service network.

- **Area in Need of Improvement #1: Rural service access still needs improvement**

While access to service has improved in rural areas relative to before NorthSTAR, there is a perception on the part of rural providers and consumers that service availability is not yet adequate. Part of the access problem may be inherent to being in a rural area, but it is possible that some of the problem can be remedied.

- **Area in Need of Improvement #2: Chemical dependency services need expansion**

Some providers have expressed the opinion that the availability of certain chemical dependency service options remains limited in NorthSTAR. This is especially true with detoxification facilities.

- **Area in Need of Improvement #3: Limited residential services for children/youth**

Our consumer focus group findings indicate consumer and parent perception of a lack of residential treatment options for children and youth.

Quality

- **Program Strength #1: Shift from inpatient services to community-based services**

As documented in Chapter 3, managed behavioral health care in the NorthSTAR has had a desired effect on service utilization: inpatient utilization has decreased, while community services have increased. At the same time, utilization of new generation medications as a proportion of total prescription claims has risen, which is an indication of more effective pharmacological treatment.

- **Program Strength #2: Effective use of information-tracking and feedback**

The effort by the NorthSTAR state office to utilize the data warehouse, combined with the complaint tracking system and contract auditing processes, results in the ability of NorthSTAR to reshape its service elements and to refine its program rules. Some examples of these processes include: the establishment of the 23-hour observation unit during the second year of the program, which resulted from the analysis of claims data regarding excessive use of inpatient services; the change in reimbursement for rehabilitation services that resulted from overuse of these services; and the changes in minor procedures as the program addressed complaints from providers and consumers. This use of empirical information for feedback and for program adjustment is a commendable feature of the program.

- **Program Strength #3: Compliance with external studies requirements**

HHSC and the NorthSTAR state office effectively utilized the EQRO to develop and implement meaningful focused studies during the first waiver period. Two additional focused studies are due to be completed before the close of the second waiver period. In 2001, NorthSTAR was included in the annual Medicaid managed care review by the EQRO.

- **Program Strength #4: Consumers and providers are satisfied**

Previous consumer satisfaction surveys as well as findings from our consumer focus groups demonstrate that overall consumers are satisfied with quality of care in the NorthSTAR system. Similarly, the previous EQRO survey of providers, as well as our provider interviews, demonstrated that providers are satisfied with the quality of care and array of services received by consumers. Additionally, providers interviewed indicated that they believe the NorthSTAR system to be an improvement upon the previous system.

- **Area in Need of Improvement #1: Community service follow-up is not at a desired level**

Community services follow up within 30 days of discharge from an ER or the 23-hour observation unit, although improved over the life of the program, remains lower than NorthSTAR staff would like. Probably more significant is community services follow up from community or state hospitals, which is also at a less than desirable level.

- **Area in Need of Improvement #2: Lack of provider/consumer knowledge about the complaint process**

Even though there has been effective internal tracking of complaints that are filed, consumer focus groups reveal that many consumers are not aware of the existence of a complaint system. Interviews with providers also show that many of them either do not have complete knowledge of how the system works or do not have faith that the system is useful. This latter perception is particularly disappointing given the care with which the

NorthSTAR program organizes and addresses complaints. It appears that there is a major need for information outreach about the complaint process.

- **Area in Need of Improvement #3: Annual Medicaid managed care review by EQRO in 2002.**

As discussed in chapter 3, no annual Medicaid managed care review was completed by an EQRO for 2002. This may have been due to the termination of the state's EQRO by HHSC at the end of 2001.

Cost Effectiveness

- **Program Strength #1: NorthSTAR provides more services at lower cost**

The independent assessment team finds that, over the four-year waiver period, NorthSTAR has resulted in cost savings of about $20 million.

- **Area in Need of Improvement #1: The high MLR for the BHO**

While the program results in savings, the high MLR is likely to make it difficult to sustain the program in the long run. This may require higher PMPMs in the future, or result in restrictions in access to services or lower reimbursement rates to providers. The healthier Medicaid MLR bodes well for the continuation of the waiver portion of NorthSTAR. But, loss of the indigent portion of the project would reduce continuity of care for persons moving in and out of Medicaid, reduce provider participation and could result in higher numbers of persons deteriorating to the point of SSI eligibility.

Additional Observations

In addition to the specific issues of access, quality, and cost, the assessment team has made the following observations. While they go beyond the three specific criteria on which the Medicaid portion of the NorthSTAR program is being evaluated, the issues noted below may have important effects on the operation of NorthSTAR and therefore indirect implications for access, quality, and cost.

- **Information Documentation**

As noted in the first section of this chapter, the data warehouse and other information tracking systems have been used effectively for program feedback in NorthSTAR. This is an unambiguous success of the program. The Independent Assessment Team is concerned, however, that much of the documentation of these information-tracking systems remains informal and incomplete. This is probably related to the self-identity by the NorthSTAR staff as a "demonstration project." As such, the NorthSTAR staff are

enthusiastic about the program and have rich and intimate knowledge of how all its elements work, but they have not had the time or resources to take a step back to document them carefully. This makes it difficult for outsiders or future staff members to gain comprehensive knowledge of all the details of the program, whether it is the codification of variables in the data warehouse, the responsibility of specific program officials, or the methodology on which capitation rates are estimated.

This reliance on informal communication and personal knowledge may be adequate for the initial stage of operation. If NorthSTAR is to be continued or expanded in the future, however, it is advisable to have more formal documentation to ensure program continuity.

- **Provider Payment Issues**

Many providers believe the reimbursement for their services to be inadequate. To be fair to NorthSTAR, however, this perception is no different from that of providers in traditional Medicaid or in other Medicaid managed care waivers. Nonetheless this is an issue that the state should address in order to maintain the long-term viability of the provider network.

Regardless of their view on the adequacy of payment level, most providers agree that the timeliness of payment has increased under NorthSTAR. ValueOptions, has managed to consistently exceed the clean claims target set for it by the NorthSTAR state office. For that achievement, ValueOptions should be commended.

- **Organizational Relationships**

The three organizations with administrative functions in the NorthSTAR program—the NorthSTAR state office, DANSA, and ValueOptions—collaborate very well in implementing the program. With the exception of the organizational instability of DANSA during the first three years of operation, communication channels among the three organizations appear to be clear. In that period of time there appeared to be mismatches in expectations and in role definitions between the NorthSTAR state office and DANSA. As a result the potentials of DANSA for monitoring service quality and in strategic planning were not realized. With the changes in DANSA over this past year, its new leadership has a clearer vision of the role of DANSA and expresses a desire to work in partnership with ValueOptions.

Organizational relationships and clarity in roles are important to the health of the entire program. Our interviews and focus groups indicate that providers and consumers seem unclear about the functions and authority of DANSA. This probably undercut DANSA's ombudsman function in the past. The new leadership of DANSA is making an effort to establish better relationships with the providers as well.

- **Systems Perspectives**

While the federal mandate for this independent assessment is to evaluate the Medicaid portion of the NorthSTAR program only, it is important to point out that there are important benefits to having an integrated service system which do not directly affect the access, quality, or cost of the current Medicaid program but which have important ramifications for services to the Medicaid population in the long run. One example of this is the continuity of care made possible by serving Medicaid and state indigent patients in a single model. This means that as individuals move in and out of Medicaid, they still have access to the same services without disruption. Another benefit is the economy of scale afforded by serving all beneficiaries within the same provider network.

The independent assessment team believes that each of its four features of being an ***at-risk, carve-out, integrated, and blended-funding*** not only have individual values by themselves, but their combination results in added strengths not available otherwise. As the state of Texas evaluates its policy decisions for the future of NorthSTAR and similar models, the benefits of this combination of features in a single system should be taken into account.

Recommendations

Based on the empirical information and stakeholder and consumer feedback throughout the independent assessment process, we conclude that overall, NorthSTAR has been successful in increasing service access and reducing program costs. The program's impact on service quality is a bit more ambiguous, partly because of limitations in data and time for research. It is our impression that the quality of services is no worse than that in the traditional Medicaid behavioral health service system overall, and has improved under NorthSTAR in the reduction in emphasis on inpatient services.

Despite the program's success, there are areas for which improvement is needed. We present the following recommendations for further improvement of the program:

Recommendation #1: Maintain and expand the provider service network

The specialty provider network is an asset of the NorthSTAR program. The state should make every effort to maintain the diversity of SPNs and add to it as needed in the future. Individual providers should also be added as appropriate in order to further increase access to providers. This is especially true for psychiatric professionals in the outlying rural areas.

Recommendation #2: Rigorously pursue the use of telemedicine technology

The Texas Legislature has recently approved Senate Bill 691 to make telemedicine services reimbursable in the State's Medicaid program. DANSA has also started to build the infrastructure for such services within NorthSTAR. Telemedicine is an important

strategy for addressing issues of service access, and the State NorthSTAR office should work to facilitate its development

Recommendation #3: Re-examine the organization of the Mobile Crisis Unit

While the Mobile Crisis Unit is an important element of the service array, some NorthSTAR providers believe that having a Dallas-based mobile unit is not the best approach. We are aware that the cost of a decentralized mobile unit may or may not be justified. However, the state should explore the possibility of having mobile crisis units based on smaller geographical regions within the NorthSTAR area.

Recommendation #4: Re-examine residential facilities and chemical dependency services

Although in general outpatient services are less expensive and more flexible, the program should not be driven entirely by a desire to avoid inpatient and residential services. There have been references by both providers and consumers to the lack of appropriate residential services in two areas: for children and for consumers with chemical dependency. The state should explore the possibility of adding appropriate facilities in these two areas of the NorthSTAR network.

Recommendation #5: NorthSTAR state office should continue to rigorously study the area of community follow-up after discharge from hospitals or 23-hour observation.

The state's contracted EQRO is currently conducting a study that will address this issue at least in part. The NorthSTAR state staff, along with ValueOptions and DANSA, should review closely any related findings by the EQRO and implement any recommended, appropriate, and viable remediation promptly to effect positive change in this area. The state should consider further study as needed in this area to supplement the EQRO findings.

Recommendation #6: Strengthen the monitoring of program rule changes by the behavioral health organization

The state NorthSTAR office and the current BHO, working together, have been effective in adjusting program rules, such as the preauthorization limit for rehabilitation services and service coordination, according to feedback from data. This is a positive feature. However, in the interest of checks and balance, the state office should monitor carefully such policy changes to make sure that the quality of services is not sacrificed for cost savings.

Recommendation #7: Further strengthen the quality monitoring process in the system

As discussed in Chapter 3, the NorthSTAR program's quality monitoring is adequate, but there is room for improvement. One way to accomplish this is to add an annual contract audit of ValueOptions by NorthSTAR and/or by DANSA to address specifically past

deficiencies and to ensure compliance with other quality-related responsibilities. A second strategy is for the state office to work closely with the BHO and DANSA to clarify each organization‘s responsibility in quality assurance, to determine clearly defined long-term quality goals and to develop formalized plans for meeting them.

Recommendation #8: DANSA and NorthSTAR state office should study further the area of potential lack of adequate information or knowledge by consumers.

The recent effort by DANSA to improve its web-based information is commendable. At the same time, outreach to consumers as well as providers should be carried out with multiple strategies and on an ongoing basis. In view of the apparent lack of knowledge about procedures for complaints and other system processes on the part of both the consumers and the providers, we recommend that DANSA and NorthSTAR state office engage in further study of this area to better understand potential deficits in information or knowledge before undertaking any needed remediation.

Recommendation #9: Increase consumer participation

Another way to address the lack of knowledge by consumers—and at the same time increase feedback to the service system—is to institutionalize more formal mechanisms for consumer participation. DANSA currently has a consumer advisory council, but NorthSTAR State office, ValueOptions, and DANSA could all enhance educational efforts/methods regarding the system, consumer benefits, and how consumers can be involved in the system, perhaps through committees both for consumers entering NorthSTAR, and those already being served.

Notes

[1] Health and Human Service Commission, *Medicaid Managed Care Review, Chapter 3: Medicaid Managed Care History in Texas*. Online. Available: http://www.hhsc.state.tx.us/medicaid/MMCR_Main/MMCR_PDF_frontpage.htm. Accessed: April 2003.

[2] The seven counties are Dallas, Collins, Ellis, Hunt, Kaufman, Navarro, and Rockwall.

[3] There are two exceptions: 1) the BHO is not at-risk for medications; 2) state hospital inpatient stays are paid for through the portion of the state hospital budget allotted to ValueOptions--unless more days are used than are funded for, at which point ValueOptions has to pay for the additional beds at a premium rate

[4] ValueOptions, *NorthSTAR Provider Manual*. Onine available: www.valueoptions.com/provider/northstar/northstar_provider_manual_2002.pdf. Accessed: February 2003.

[5] ValueOptions is a privately-held, for-profit behavioral health organization. As of 2002, the company had around 900 private sector clients and 32 public sector clients. The company's headquarters are in Virginia and the NorthSTAR contract is managed from an office in Dallas.

[6] During the first eight months of Medicaid operation, NorthSTAR included two competing behavioral health organizations, ValueOptions and Magellan. Magellan withdrew from the program on September 30, 2000.

[7] The 12 SPNs participating in NorthSTAR are:

- Dallas MetroCare *(formerly known as Dallas County MHMR)*
- Lakes Regional MHMR. (www.lrmhmrc.org/)
- Hunt County MHMR. (www.hcmhmr.com/)
- LifePath Systems *(Collin County MHMR)*. (www.mhmr.state.tx.us/CentralOffice/PublicInformationOffice/DirectoryOfServicesLP.html)
- Johnson-Ellis-Navarro MHMR. (www.jenmhmr.com/)
- ABC Behavioral Health
- Adapt (www.adaptusa.com/www/adaptnof4.nsf/htmlmedia/adapt_of_texas.html)
- Dallas Behavioral Health Network
- Lifenet (lhpres.org/features/lifenet/lifenet.htm)
- Telecare – operates the mobile crisis unit. (http://willow.he.net/~telecare/index.html)
- Youth Advocate Program

[8] According to NorthSTAR officials, prior to the use of the 23-hour observation unit, there was a tendency on the part of local hospitals to send consumers they could not effectively treat to the state hospitals without an adequate attempt at diversion.

[9] Upper Payment Limit is the estimated cost of providing services under the traditional fee-for-service design (at the beginning of a managed care waiver project) or under historical managed care performance (for continuing managed care waivers).

[10] NorthSTAR serves both Medicaid and non-Medicaid indigent clients funded by other program sources, so there are separate rate categories for the non-Medicaid clients. Since this evaluation deals with the Medicaid portion of the NorthSTAR only, the indigent client categories are not presented in the report.

[11] Medicaid recipients excluded from NorthSTAR are: individuals in intermediate care facilities for the mentally retarded (ICF-MR), individuals in nursing homes, adults in IMD inpatient beds and children in the state foster care system.

[12] The enrollment broker is Maximus, Inc. A new Broker has been contracted and Maximus will be replaced in September 2003.

[13] Since Magellan's withdrawal from the program in August 2000, choice of plan was no longer pertinent. The use of a single BHO since then has been approved in NorthSTAR's subsequent waiver.

[14] SSI policy changes in October 2000 temporarily increased the rate of new adult enrollment in SSI. The state anticipates that this increase will moderate in 2003, returning to population growth in 2004.

[15] SSI policy changes in October 2000 temporarily increased the rate of new adult enrollment in SSI. The state anticipates that this increase will moderate in 2003, returning to population growth in 2004.

[16] Policy changes in TANF child eligibility criteria and eligibility periods may affect this estimate.

[17] We believe the decline in November 2002, which is typically a seasonally low month, may be a result of incomplete utilization data.

[18] Ibid. p. 6-18.

[19] Texas Department of Mental Health and Mental Retardation, *Child and Family Surveys Statewide and for the NorthSTAR Service Area FY 2002.* (Austin, Texas, 2002). Online. Available: http://www.mhmr.state.tx.us/CentralOffice/ProgramStatisticsPlanning/C&FReportFY02.pdf. Assessed:

[20] Ibid. p. 9.

[21] Three out of four (78.7 percent) were providers who have been serving NorthSTAR clients for over a year and 68 percent had been practicing in their specialty for more than ten years

[22] Texas Health and Human Services Commission, *Texas NorthSTAR Program 2001: Provider Satisfaction Survey*. Online. Available at: http://www.hhsc.state.tx.us/medicaid/mc/about/reports/2001annrpts/NorthSTAR%20Exec%20Summary%20Final%208-13-01.pdf. Accessed on June 15, 2003.

[23] To determine hospital inpatient claimants, we took an unduplicated count of claimants per month with at least one admission date and divided by total claimants per month. We looked separately at community hospitals (which include every inpatient hospital that is not a state hospital) and the state hospitals.

[24] For the purposes of our study, Community Hospital includes all inpatient services except State Hospital.

[25] The percentage of State hospital inpatient claimants was measured by calculating the unduplicated number of new admittances per month. Multiple admittances by the same consumer within the same month were counted separately unless we were certain it was actually the same stay.

[26] To determine inpatient hospital claims, we obtained a count of inpatient hospital service code encounter claims per month and divided it by total service code encounter claims for the same month. To determine community service encounter claims, we obtained a count of all other encounter claims (psychologist/psychiatrist, service coordination, rehabilitation, outpatient hospital, TCADA Clinic, and counseling) and divided by total service claims.

[27] To calculate bed days we totaled the number community hospital days per month by each claimant with an admittance and discharge date. The days for all claimants per month were summed for the month in which they were admitted. As claimants were admitted with holdover stays (held over the end of the month), these claimants' monthly bed days were counted separately for each month they were in the hospital. We then divided the total number of bed days per month by the number of claimants per month to reach an average number of bed days per inpatient claimant. We acknowledge that this method will slightly underestimate the bed days average because, while total days per month is a straightforward calculation, the count of claimants for each month is slightly overestimated due to our method of counting monthly holdovers as separate claimants.

[28] Our methodology slightly underestimates the average bed days per month by counting holdover claimants as separate. In addition, the last few months of the study period, in particular, will not reflect consumers who entered state hospital during this time for an extended stay and have not yet been discharged (because we calculated bed days only for claimants with a discharge date)..

[29] Initially, we took the monthly number of claimants with at least one ER or 23-hour Observation service claim and we divided this number by the total number of claimants per month.

[30] We took the total ER encounter claims per month and divided by the total number of claims for the same month. We took the total number of 23-hour observation encounter claims and divided by the total number of claims for the same month.

[31] We calculated a ratio of unduplicated medication services claimants per month to total unduplicated claimants per month

[32] Initially, we calculated the ratio of rehabilitation service claimants by taking the unduplicated count of claimants with rehabilitation claims during a month divided by the unduplicated count of total claimants per month.

[33] We calculated the ratio of rehabilitation service encounter claims (minus ACT) per month to total encounter claims for the same month. We calculated the ratio of ACT service encounter claims per month to total encounter claims for the same month.

[34] We calculated the unduplicated count of claimants with service coordination claims for each month, and divided this by the total count of unduplicated claimants for each month to obtain a ratio

[35] We calculated on a per-month basis the proportion of all NorthSTAR distinct prescription claims to total claims.

[36] We calculated the number of distinct New Gen claims per month and compared the totals with overall prescription claims to obtain a ratio.

[37] We calculated the number of claimants with ER or 23-hour claims each month, and then calculated the number of these consumers with a follow-up community services claim within 30 days to create a ratio

[38] We calculated the number of claimants with community hospital admittance dates per month, and then calculated the number of these claimants who also had a community services follow-up claim within 30 days of discharge.

[39] We counted the number of claimants with ER and/or 23-hour observation claims per month, and then calculated the proportion of these with a return to the ER or 23-hour Obervation unit within 7, 30, and 90 days.

[40] We calculated the number of claimants per month with discharges from any inpatient community hospital (all hospitals excluding state) and then looked at the proportion of these claimants with new community hospital admits within 7, 30, and 90 days.

[41] We calculated the number of claimants per month with discharges from a state hospital and then looked at the proportion of these claimants with new state hospital admits within 7, 30, and 90 days.

[42] Partial implementation of NorthSTAR began in July 1999, including indigent consumers and voluntary Medicaid consumers.

[43] DANSA used the shorter version of the same survey with 5additional questions specifically about NorthSTAR and one open ended question; analyzing the results from three consumer perspectives: adults, children and adult substance abuse consumers.

[44] There are differences in the types of children and families that are served in NorthSTAR and those throughout the rest of the State. Under NorthSTAR, consumers include children who are eligible for Medicaid and can receive any clinically approved behavioral health service, as well as those who only receive emergency or crisis services. CMHMRs in Texas serve children and adolescents who interact with community center facilities and are primarily Seriously Emotionally Disturbed and Seriously Mentally Ill. Therefore NorthSTAR child consumers create a more diverse sampling population from which survey results were obtained compared to those for the remainder of the state

[45] Domains were Outcomes, Access, Satisfaction, Participation in Treatment and Cultural Sensitivity, and 2 open ended questions as well as some concerning health care, school attendance, living situation, criminal justice involvement and the status of their or their children's Medicaid benefits

[46] Three out of four (78.7 percent) were providers who have been serving NorthSTAR clients for over a year and 68 percent had been practicing in their specialty for more than ten years

[47] Texas Health and Human Services Commission, *Texas NorthSTAR Program 2001: Provider Satisfaction Survey*. Online. Available at: http://www.hhsc.state.tx.us/medicaid/mc/about/reports/2001annrpts/NorthSTAR%20Exec%20Summary%20Final%208-13-01.pdf. Accessed on June 15, 2003.

[48] In the CMHMRC system, rates for most community services have not increased and many have been reduced.

[49] Consumer Focus Group and Provider Interview Findings.

[50] CMS guidelines, specified at http://cms.hhs.gov/states/letters/smd1222a.pdf, p.19.

[51] Texas Health and Human Services Commission, *SFY2001 Annual State Report*., Available at: http://www.hhsc.state.tx.us/medicaid/mc/about/reports/2001annrpts/Annual%20Report%20Final.pdf. Accessed on June 13, 2003.

[52] The study looked at diagnosis based on clinical guidelines, the presence of "co-morbid behavioral health conditions," prescribed treatments, communication with the primary care provider, and relevant demographic characteristics of the client. The sample population included members of the BHO who were between 6 years and 17 years/11 months of age as of August 31, 2000, enrolled in NorthSTAR at any time during the study period, and had at least one ADHD diagnosis with the BHO during this period.

[53] Texas Department of Health, *Attention Deficit/Hyperactivity Disorder Focus Study Dallas Service Area NorthSTAR-ValueOptions Executive Summary*, p. 1

[54] The study took a sample of 460 TANF+ Medicaid recipients, age 14 to 51, receiving behavioral health services under NorthSTAR, and found that of this number, 58% also received physical health services from STAR. Of this 58%, 44% were pregnant.

[55] Texas Department of Health, *NorthSTAR Pregnancy/Substance Abuse Final Executive Summary*, October 11, 2001, p.1

[56] HEDIS standards as of 2000 specifies that 48 percent of follow-ups should be within 7 days and 71 percent should be within 30 days. TDMHMR has a higher internal standard of 75 percent of follow-ups within 30 days.

[57] Texas Health and Human Services Commission. "Behavioral Health in Managed Care: A Review of Texas Medicaid Models." December 2002. Available online:

http://www.hhsc.state.tx.us/Medicaid/reports/BHMC2002/Rpt_TOC.html. Accessed: May 1, 2003. Page 8-2.

[58] Kongstvedt, Peter. Managed Care: What It Is and How it Works. Second Edition.Gaithersburg, Maryland, 2002. P. 287.

[59] Department of Health Services Research and Management, Texas Tech University Health Services, Center. "NorthSTAR Medicaid Managed Care Waiver Study: An Independent Assessment of Access, Quality and Cost Effectiveness." July 2, 2001.

[60] Texas Health and Human Services Commission. "Medicaid Administrative Claiming Guide: FFY 2003." Updated October 16, 2002. Page 7. Available online: http://www.mhmr.state.tx.us/CentralOffice/Medicaid/FFY03macmanual.doc. Accessed: May 17, 2003.

[61] Texas Department of Mental Health and Mental Retardation. "Texas NorthSTAR 1915(b) Update to Approved Waiver Application." Appendix DIV.

[62] Texas Department of Mental Health and Mental Retardation. "Texas NorthSTAR 1915(b) Update to Approved Waiver Application." Appendix DIV.

[63] Texas Health and Human Services Commission Web Site. Texas Medicaid Program and Provider Information. http://www.hhsc.state.tx.us/medicaid/programs.html. Accessed: May 31, 2003.

[64] In other words, if the original data grew by 60 percent, 25 percent, four percent, three percent, two percent, two percent, one percent, one percent, one percent, one percent, the data that was six months old would be inflated to 101 percent four times to get the estimated complete data.

[65] These projections are now made by HHSC.

[66] Interview with John Theiss. April 30, 2003.

[67] Texas Health and Human Services Commission. "Texas Medicaid in Perspective." Page 3-19. Available online: http://www.hhsc.state.tx.us/Medicaid/reports/PB/2002pinkbook.html. Accessed: May 31, 2003.

[68] Ibid.

[69] Ibid.

[70] Ibid.

[71] Original waiver application

[72] Waiver renewal application.

[73] Interview with John Theiss. April 30, 2003.